VIRGINIA BOARD OF NURSING
BUSINESS MEETING
DRAFT Agenda

Department of Health Professions – Perimeter Center
9960 Mayland Drive, Conference Center 201 – **Board Room 2**
Henrico, Virginia 23233

DHP Mission – the mission of the Department of Health Professions is to ensure safe and competent patient care by licensing health professionals, enforcing standards of practice, and providing information to health care practitioners and the public.

<u>Tuesday, May 23, 2023 at 9:00 A.M. – Quorum of the Board</u>

CALL TO ORDER: Brandon A. Jones, MSN, RN, CEN, NEA-BC; President

ESTABLISHMENT OF A QUORUM

ANNOUNCEMENT

   Staff Update:

   ➢ **Tamiera Redding** has accepted the Discipline Specialist and started on May 10, 2023.

A. UPCOMING MEETINGS:

- NCSBN Executive Officers Summit is scheduled for June 21-23, 2023 in Newport Beach, CA. Ms. Douglas will attend as the President of NCSBN BOD
- NCSBN BOD is scheduled for July 11-12, 2023 in Chicago, IL. Ms. Douglas will attend as the President of NCSBN BOD.

- **Please note** – NCSBN Annual Meeting is scheduled for August 16-18, 2023 in Chicago. Board Members who are interested in attending, please let Mr. Jones and Ms. Douglas know.

- The Committee of the Joint Boards of Nursing and Medicine business meeting & proceedings are scheduled for June 14, 2023 at 9 AM in Board Room 2.
- The Education Informal Conference Committee is scheduled for June 20, 2023 at 9 AM in Board Room 3.
- HPMP Presentation is scheduled for July 18, 2023 Board Business Meeting.

- Nursing and Nurse Aide Education Program Training Sessions:
  - ➢ Preparation and Regulation Review for Program Directors and Faculty of PN & RN Pre-Licensure Nursing Programs is scheduled on Tuesday, June 6, 2023, at DHP – Conference Center from 9 am to 12 noon.
  - ➢ **VIRTUAL** Orientation to Establish a Nurse Aide Education Program is scheduled for Thursday, June

8, 2023

➢ Preparation and Regulation Review for Coordinators and Instructors of Nurse Aide Education Programs is scheduled on Thursday, June 22, 2023, at DHP – Conference Center from 1 pm to 4 pm.

REVIEW OF THE AGENDA:
- Additions, Modifications
- Adoption of a Consent Agenda
- **CONSENT AGENDA**
  *B1 March 20, 2023   Formal Hearings
  *B2 March 21, 2023   Business Meeting
  *B3 March 22, 2023   Panel A – Formal Hearings
  *B4 March 22, 2023   Panel B – Formal Hearings
  *B5 March 23, 2023   Formal Hearings
  *B6 April 10, 2023   Telephone Conference Call

  C1 - Board of Nursing Monthly Tracking Log as of April 30, 2023
  *C2 - Agency Subordination Recommendation Tracking Log
  C3 - Executive Director Report

  *C4 – March 21, 2023, Disciplinary Committee Meeting Minutes
  *C5 – April 13, 2023 Committee of the Joint Boards of Nursing and Medicine Telephone Conference Call Minutes

  *C6 – HPMP Quarterly Report for January – March 2023
  *C7 – Dr. Hills' April 11, 2023 APRN Roundtable Report
  *C8 – Ms. Morris' NCSBN Midyear Meeting Report
  *C9 – Ms. Vu's NCSBN Midyear Meeting Report
  *C10 – Dr. Parke's NCSBN Midyear Meeting Report
  Ms. Bargdill's April 27-28, 2023 Massage Board Executive Summit Report

DIALOGUE WITH DHP DIRECTOR – Mr. Owens

B. DISPOSITION OF MINUTES – None

C. REPORTS
- March 28, 2023 NCSBN Leadership Day – **Mr. Jones**
- March 29-30, 2023 NCSBN Midyear Meeting – **Mr. Jones**
- American Organization for Nursing Leadership (AONL) 2023: Inspiring Leaders - **Ms. Douglas**
- 2023 Federation of State Medical Boards (FSMB) Annual Meeting – **Ms. Douglas**

D. OTHER MATTERS:
- Board Counsel Update (**verbal report**)
- ***D1 -** 2024 Dates for Board Meetings and Hearings – **Mr. Jones /Ms. Douglas**
- ***D2** – Informal Conference Schedule from July to December 2023 – **FYI**
- ***D3 –** NCSBN International Guiding Principles for Telehealth Nursing **– FYI**
- Digital Access to Board Business Meeting via BOX – **Ms. Douglas**
- Update on Digital Case Management **– Ms. Bargdill/Ms. Morris**

- Journal of Nursing Regulation – April 2023 – **Discuss materials provided, Mr. Jones and Ms. Douglas**
  - ➢ *Assessing the Impact of COVID-19 Pandemic on Nursing Education: A National Study of Prelicensure RN Programs*
  - ➢ *The 2022 National Nursing Workforce Survey*

E. EDUCATION:
- Nurse Aide, Medication Aide and Nursing Education Program Updates – **Ms. Wilmoth (verbal report)**

F. REGULATIONS/LEGISLATION– Ms. Barrett
F1 – Chart of Regulatory Actions

Guidance Document (GD) Revision
- ➢ **90-3** *Continued Competency Violations for Nurses*
- ➢ **90-6** *Scope of Practice for Registered Nurses and Licensed Practical Nurses*
- ➢ **90-38** *Disposition of Disciplinary Cases against Practitioners Practicing on Expired Licenses or Registrations*

10:00 A.M. – PUBLIC COMMENT

10:30 A.M. – VIRTUAL Presentation regarding Consideration of Alternate International Credential Review Agency – **Josel Silny & Associates, Inc., International Education Consultants**
- ➢ *Presentation's Materials

CONSIDERATION OF CONSENT ORDERS
*G1 – Ania B. Ramondo, RN
*G2 – Phyllis C. Jenkins, LPN
*G3 – Jasmine Stephenson, RN

12:00 P.M. – LUNCH

1:00 P.M. – CONSIDERATION OF POSSIBLE SUMMARY SUSPENSIONS

- ➢ TBD

1:30 P.M.

*E1 – April 18, 2023 Education Informal Conference Committee DRAFT Minutes

April 18, 2023 Education Informal Conference Committee Recommendations regarding:
- ➢ J. Sergeant Reynolds Community College, Richmond, Associate Degree Program, US28406300
- ➢ Germanna Community College, Locust Grove, Practical Nursing Program, US28104000
- ➢ Virginia Highlands Community College, Abingdon, Practical Nursing Program, US28110800
- ➢ Medical Learning Center, Fairfax, Practical Nursing Education Program, US28110500

CONSIDERATION OF AGENCY SUBORDINATE RECOMMENDATIONS

1	*Christine Marie Jordan, LPN	2	*Susan Marie Brown, RN
3	*Syble Elaine Craig Hallstrom, RN	4	*Margo C. Rose, CNA
5	*Kimberly Diane Cole, RN	6	*Tina Marie Pascua, RN
7	*Sophia Louise Howard, RMA	8	*Sophia Louise Howard, CNA
9	*Jennifer Marie Bookard Smith, CNA	10	*Chinelo Joy Osogu, CNA
11	*Donna Kaye Martin, CNA	12	*Heather Nicole Fix, LPN
13	*Mary Ann McCloud, RN	14	*Sarah C. Steffens Livingston, RN
15	*Wanda Malone, RN	16	*Thiada Y Holmes, LPN
17	*Nyola Gwen Shaw, LPN	18	*Angel Renee Owens, RMA
19	*Angel Renee Owens, CNA	20	*Mittle Essie Caines, CNA
21	*Trevon Molock, CNA	22	*Jessica N. Bailey, CNA
23	*Roger Ingram Morrison, CNA	24	*Renee Seher Allen, RN
25	*John Henry O'Donald, RN	26	*Erin E. Beck, RN
27	*Kimberly Lewis, CNA	28	*Tammy Lynn Sonier, LPN
29	*Janet Ann-Marie Dean, LPN	30	*Deborah Tibbs Covey, LPN
31	*Jeffrey M. Hubble, RN		

ADJOURNMENT OF BUSINESS AGENDA

MEETING DEBRIEF
- ❖ What went well
- ❖ What needs improvement

(* 1st mailing - 5/4) (** 2nd mailing - 5/10) (***3rd mailing - 5/17)

Our mission is to assure safe and competent practice of nursing to protect the health, safety and we

VIRGINIA BOARD OF NURSING
FORMAL HEARINGS
March 20, 2023

TIME AND PLACE: The meeting of the Virginia Board of Nursing was called to order at 9:01 A.M., on March 20, 2023 in Board Room 2, Department of Health Professions, 9960 Mayland Drive, Suite 201, Henrico, Virginia.

BOARD MEMBERS
PRESENT: Brandon A. Jones, MSN, RN, CEN, NEA-BC; President
Carol Cartte, RN, BSN
Ann T. Gleason, PhD, Citizen Member
James L. Hermansen-Parker, MSN, RN, PCCN-K
Meenakshi Shah, BA, RN

STAFF PRESENT: Robin Hills DNP, RN, WHNP, Deputy Executive Director for Advanced Practice
Christina Bargdill, BSN, MHS, RN; Deputy Executive Director
Sylvia Tamayo-Suijk, Senior Discipline Specialist

OTHERS PRESENT: Laura A. Booberg, Assistant Attorney General
Students from Riverside

ESTABLISHMENT
OF A PANEL: With five members of the Board present, a panel was established.

FORMAL HEARINGS: **Darlington Tobenna Mochaa-Uchefunna, RN   0001-262697**

Mr. Mochaa-Uchefunna appeared.

Tammie Jones, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Ms. Booberg was legal counsel for the Board. Juan Ortega, court reporter with Ortega International Reporting, recorded the proceedings.

David Cowras, Senior Investigator, Enforcement Division, and Julius Fauntleroy were present and testified.

RECESS: The Board recessed at 10:56 A.M.

RECONVENTION: The Board reconvened at 11:04 A.M.

CLOSED MEETING:	Dr. Gleason moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 11:18 A.M., for the purpose of deliberation to reach a decision in the matter of **Darlington Tobenna Mochaa-Uchefunna.** Additionally, Dr. Gleason moved that Dr. Hills, Ms. Bargdill, Ms. Tamayo-Suijk and Ms. Booberg, Board Counsel, attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.
RECONVENTION:	The Board reconvened in open session at 12:46 P.M. Dr. Gleason moved that the Board of Nursing certify that it heard, discussed or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.
ACTION:	Ms. Shah moved that the Board of Nursing reprimand **Darlington Tobenna Mochaa-Uchefunna** with terms. The motion was seconded by Dr. Gleason and carried unanimously. This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel.
RECESS:	The Board recessed at 12:47 P.M.
RECONVENTION:	The Board reconvened at 1:32 P.M.
FORMAL HEARINGS:	**Candace Michelle McNeil, LPN** **0002-069483** Ms. McNeil appeared. Christine Andreoli, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Ms. Booberg was legal counsel for the Board. Juan Ortega, court reporter with Ortega International Reporting, recorded the proceedings.

Tonya James, Compliance Case Manager, and Quincey Harvey, former coworker, were present and testified.

CLOSED MEETING: Dr. Gleason moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 2:33 P.M., for the purpose of deliberation to reach a decision in the matter of **Candace Michelle McNeil.** Additionally, Dr. Gleason moved that Dr. Hills, Ms. Bargdill, Ms. Tamayo- Suijk and Ms. Booberg attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.

RECONVENTION: The Board reconvened in open session at 2:54 P.M.

Dr. Gleason moved that the Board of Nursing certify that it heard, discussed or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.

ACTION: Ms. Shah moved that the Board of Nursing reprimand and indefinitely suspend the license of **Candace Michell McNeil** to practice Practical Nursing in the Commonwealth of Virginia. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.

This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel.

FORMAL HEARINGS: **Tammie Lasharn Puryear, CNA   1401-155930**

Mr. Puryear appeared.

Christine Andreoli, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Ms. Booberg was legal counsel for the Board. Juan Ortega, court reporter with Ortega International Reporting, recorded the proceedings.

Chris Moore, Senior Investigator, Enforcement Division, and Lori Hall, Assistant Director, Lakewood Retirement Community were present and testified.

CLOSED MEETING:	Dr. Gleason moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 4:04 P.M., for the purpose of deliberation to reach a decision in the matter of **Tammie Lasharn Puryear**. Additionally, Dr. Gleason moved that Dr. Hills, Ms. Bargdill, Ms. Tamayo-Suijk and Ms. Booberg, Board Counsel, attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.
RECONVENTION:	The Board reconvened in open session at 4:19 P.M. Dr. Gleason moved that the Board of Nursing certify that it heard, discussed or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.
ACTION:	Ms. Cartte moved that the Board of Nursing dismiss the case against **Tammie Lasharn Puryear**. The motion was seconded by Ms. Shah and carried unanimously. This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel.
FORMAL HEARINGS:	**Meredith Miller Siever Stimson, RMA** **0031-005750** Ms. Stimson did not appear. Rebecca Ribley, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Ms. Booberg was legal counsel for the Board. Juan Ortega, court reporter with Ortega International Reporting, recorded the proceedings. Scott Dillon, Senior Investigator, Enforcement Division was present and testified. Connie Guajardo testified by phone.
CLOSED MEETING:	Dr. Gleason moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 4:51 P.M., for the purpose of deliberation to reach a decision in the matter of **Meredith Miller Siever Stimson.** Additionally, Dr. Gleason moved that Dr. Hills, Ms. Bargdill, Ms. Tamayo- Suijk and Ms. Booberg attend the closed

meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.

RECONVENTION: The Board reconvened in open session at 5:16 P.M.

Dr. Gleason moved that the Board of Nursing certify that it heard, discussed or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.

ACTION: Ms. Cartte moved that the Board of Nursing indefinitely suspend the right to renew the Medication Aide registration of **Meredith Miller Siever Stimson**. The motion was seconded by Ms. Shah and carried unanimously.

This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel.

FORMAL HEARINGS: **Nicolette White, LPN** **0002-087408**

Ms. White did not appear.

Tammie Jones, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Ms. Booberg was legal counsel for the Board. Juan Ortega, court reporter with Ortega International Reporting, recorded the proceedings.

CLOSED MEETING: Dr. Gleason moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 5:29 P.M., for the purpose of deliberation to reach a decision in the matter of **Nicolette White.** Additionally, Dr. Gleason moved that Dr. Hills, Ms. Tamayo-Suijk and Ms. Booberg attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Ms. Shah and carried unanimously.

RECONVENTION: The Board reconvened in open session at 5:49 P.M.

	Dr. Gleason moved that the Board of Nursing certify that it heard, discussed, or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.
ACTION:	Ms. Shah moved that the Board of Nursing reprimand and indefinitely suspend the license of **Nicolette White** to practice Practical Nursing in the Commonwealth of Virginia for a period of not less than one year. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.
	This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel.
ADJOURNMENT:	The Board adjourned at 5:50 P.M.

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Christina Bargdill, BSN, MHS, RN
Deputy Executive Director

VIRGINIA BOARD OF NURSING
BUSINESS MEETING MINUTES
March 21, 2023

TIME AND PLACE:	The business meeting of the Board of Nursing was called to order at 9:00 A.M. on March 21, 2023, in Board Room 2, Department of Health Professions, 9960 Mayland Drive, Suite 201, Henrico, Virginia.
PRESIDING:	Brandon A. Jones, MSN, RN, CEN, NEA-BC; President
BOARD MEMBERS PRESENT:	Felisa A. Smith, PhD, MSA, RN, CNE; Second Vice-President Laurie Buchwald, MSN, WHNP, FNP Carol Cartte, RN, BSN Yvette L. Dorsey, DNP, RN Margaret J. Friedenberg, Citizen Member Ann Tucker Gleason, PhD, Citizen Member James L. Hermansen-Parker, MSN, RN, PCCN-K Dixie L. McElfresh, LPN Helen Parke, DNP, FNP-BC Meenakshi Shah, BA, RN
MEMBERS ABSENT:	Cynthia M. Swineford, RN, MSN, CNE; First Vice-President Paul Hogan, Citizen Member Jennifer Phelps, BS, LPN, QMHP-A, CSAC
STAFF PRESENT:	Robin L. Hills, DNP, RN, WHNP; Deputy Executive Director for Advanced Practice Claire Morris, RN, LNHA; Deputy Executive Director Christina Bargdill, BSN, MHS, RN; Deputy Executive Director Jacquelyn Wilmoth; Deputy Executive Director for Education Christine Smith, RN, MSN; Nurse Aide/RMA Education Program Manager Randall Mangrum, DNP, RN; Nursing Education Program Manager Patricia Dewey, RN, BSN, Discipline Case Manager Francesca Iyengar, MSN, RN, Discipline Case Manager Huong Vu, Operations Manager Ann Hardy, MSN, RN, Compliance and Case Adjudication Manager
OTHERS PRESENT:	Laura Booberg, Senior Assistant Attorney General, Board Counsel Arne Owens, DHP Director James Jenkins, Jr., RN, DHP Chief Deputy Erin Barrett, DHP Director of Legislative Affairs and Policy Matthew Novak, DHP Policy Analyst
IN THE AUDIENCE:	Becky Bowers-Lanier, B2L Consulting Moira Holdren, Bon Secours Mercy Health Patricia Selig, PhD, FNP, Board of Nursing staff Nora Sacra, BSN, RN, Board of Nursing staff Megan Podboy, MSN, RN, Board of Nursing staff

Virginia Board of Nursing
Business Meeting
March 21, 2023

ESTABLISHMENT OF A QUORUM:

Mr. Jones asked Board Members and Staff to introduce themselves. With 11 members present, a quorum was established.

ANNOUNCEMENTS: Mr. Jones acknowledged the following:

- **Laura A. Booberg** has joined the Office of the Attorney General as of February 10, 2023 as Senior Assistant Attorney General. She will be representing DHP and its Boards of Nursing, Optometry, Veterinary Medicine, and Audiology and Speech-Language Pathology. She will also represent the Health Practitioners' Monitoring Program.

- **Erin Barrett**'s title has been changed from Senior Policy Analyst to **Director of Legislative Affairs and Policy**

Staff Update:

- ➢ **Megan Podboy, MSN, RN,** accepted the Nursing Education Program Inspector position and started on March 13, 2023.

- ➢ **Marie Gerardo, MS, ANP** accepted the Agency Subordinate/Probable Cause Reviewer position with a start date of March 27, 2023.

UPCOMING MEETINGS: The upcoming meetings listed on the agenda:

- The International Nurse Regulator Collaborative (INRC) Meeting is scheduled for March 23-24, 2023 in Chicago, IL. Ms. Douglas will facilitate the meeting as the President of NCSBN Board of Directors (BOD).
- The Nurse Licensure Compact Midyear Meeting is scheduled for March 27, 2023 in Seattle, WA. Ms. Douglas will attend as Commissioner.
- The NCSBN Midyear Meeting is scheduled for March 28-30, 2023 in Seattle, WA. Mr. Jones, Dr. Parke, Ms. Morris and Ms. Vu will attend. Ms. Douglas will attend as NCSBN President.
- **VIRTUAL** 2023 APRN Roundtable is scheduled for April 11, 2023. Dr. Hills will attend.
- The 2023 Massage Board Executive Summit is scheduled for April 27-28, 2023 in Denver, CO. Ms. Bargdill will attend.
- NCSBN BOD is scheduled for May 9-11, 2023 in Chicago, IL. Ms. Douglas will attend as the President of NCSBN BOD.

- The Education Informal Conference Committee is scheduled for April 18, 2023 at 9 AM in Hearing Room 5.
- The Committee of the Joint Boards of Nursing and Medicine business

meeting & proceedings are scheduled for April 26, 2023 at 9 AM in Board Room 2.

- Board of Health Professions business meeting is scheduled for April 6, 2023 at 10 AM in Board Room 2. Dr. Gleason will attend.

Nursing and Nurse Aide Education Program Training Sessions:
- Preparation and Regulation Review for Program Directors and Faculty of PN & RN Pre-Licensure Nursing Programs is scheduled on Monday, March 27, 2023, at Germanna Community College – Fredericksburg Campus from 9 am to 12 noon.
- Preparation and Regulation Review for Program Directors and Faculty of PN & RN Pre-Licensure Nursing Programs is scheduled on Wednesday, May 10, 2023, at Radford University Carillion from 9 am to 12 noon.
- Preparation and Regulation Review for Coordinators and Instructors of Nurse Aide Education Programs is scheduled on Monday, March 27, 2023, at Germanna Community College – Fredericksburg Campus from 1 pm to 4 pm.

ORDERING OF AGENDA:

Mr. Jones noted that the Executive Director Report (**C3**) has been added to the Consent Agenda and hard copy is provided at your place.

Mr. Jones added that a consent order (**G6**) is also provided at your place and there might be an additional consent order (**G7**) for consideration. Staff will notify the board.

Mr. Jones asked staff if there are modifications to the Agenda. None was noted

CONSENT AGENDA:

The Board did not remove any items from the consent agenda.

Ms. Shah moved to accept the items on consent agenda listed below as presented. The motion was seconded by Ms. Buchwald and carried unanimously.

Consent Agenda

B1	January 23, 2023	Formal Hearings
B2	January 24, 2023	Business Meeting
B3	January 25, 2023	Panel A – Formal Hearings
B4	January 25, 2023	Panel B – Formal Hearings
B5	January 26, 2023	Formal Hearings
B6	February 7, 2023	Telephone Conference Call

C1 - Board of Nursing Monthly Tracking Log as of February 28, 2023
C2 - Agency Subordination Recommendation Tracking Log
C3 - Executive Director Report

C4 - Board of Nursing Criminal Background Check (CBC) Report for CY2022 – **Ms. Willinger**
C5 - Board of Nursing Licensure and Discipline Statistics for CY2022 – **Dr. Hills/Ms. Vu**
C6 - NNAAP (nurse aide) pass rates for CY2022 – **Ms. Wilmoth**
C7 - PSI (medication aide) pass rates for CY2022 – **Ms. Wilmoth**
C8 - NCLEX pass rates for CY2022 – **Ms. Wilmoth**
C9 - Initial Faculty Exceptions Approved for CY2022 - *REVISED*– **Dr. Mangrum**

C10 -The Committee of the Joint Boards of Nursing and Medicine DRAFT February 22, 2023 Business Meeting Minutes.
C11 - The Committee of the Joint Boards of Nursing and Medicine DRAFT February 22, 2023 Formal Hearing Minutes.

C12 - January 24, 2023, Disciplinary Committee Meeting Minutes

DIALOGUE WITH DHP DIRECTOR OFFICE:

Mr. Owens provided the following information:
- o General Assembly 2023 session has finished. The budget has not been approved yet, waiting on amendments. As part of the budget, the Governor proposed 30 million dollars toward the Earn to Learn program. Four DHP bills were passed.
- o Top priority at DHP is healthcare workforce – phase 1 of the healthcare workforce study is completed, 2 more phases to be completed with the expectation of completion by August 2023
- o Jim Jenkins, Chief Deputy Director is representing DHP on the Governor's Right Help Right Now initiative to improve Behavioral Health
- o Board members are encouraged to apply for reappointment to the Board and those interested in applying to become a Board member are encouraged to utilize the online portal to submit application

DISPOSITION OF MINUTES:

None

REPORTS:

January 24, 2023 NCSBN President Networking Call:
NCSBN Presidents call included discussion on workforce, hydration clinics, the use of artificial intelligence and staffing issues
NCLEX NextGen testing launches April 1, 2023.

OTHER MATTERS:

Board Counsel Upate:
Ms. Booberg stated that she has nothing to report.

Revised 2023 Formal Hearing Schedule:
Dr. Hills stated that some of the special conference committee meetings for the second half of the year are being switched Formal Hearings and there will be an increase in agency subordinate meetings. Dr. Hills added that a revised schedule is coming soon and asked Board Members to continue holding the dates that they have volunteered for.

Special Conference Committee (SCC) Assignments and Scheduling Informal Conferences (IFC) of the second half of 2023:
➤ **D1** - Memo for SCC IFC Date Availability
➤ **D2** - IFC Planning Sheet for SCC's – August, October and December 2023

Ms. Morris stated that SCC Members should get together to provide her with dates of availability for the second half of 2023, which includes August, October and December.

D3 – Consideration of Alternate International Credential Review Agency:
Ms. Willinger presented information on an International Credential Review candidate. If approved, this candidate would be an option for international student credential evaluation. This would be in addition to CGFNS International, Inc.

Ms. Dorsey moved to table the discussion until such time as the candidate can come before the Board to present information and respond to questions. Ms. Parke seconded the motion. The motion carried 9 to 2.

Ms. Morris left the meeting at 9:28 A.M.

EDUCATION:

Education Update:
Ms. Wilmoth reported the following:

Nurse Aide Education Programs Update
• Christine held the first session for Orientation to Establish a Nurse Aide Education program was offered virtually on March 9 with 40 in attendance; a survey was provided to participants to gain feedback on the seminar. Germanna CC is hosting a seminar this coming Monday, 3/27 for both nursing and nurse aide.

• Regulations for Nurse Aide Education Programs were released on March 16 and include revisions to requirements for instructional personnel and

clinical sites. The most significant change was removing the geriatric requirement for instructors to increase applicant pool for faculty and to allow clinical to be conducted in environments outside of nursing homes.

- NNAAP: Town Hall meetings were hosted by Credentia on March 15 and 17 and included information regarding Credentia staff, contact information for programs and applicants, the application process, and a review of the 5 most frequently failed skills in Virginia (Positions on Side, Weighs an Ambulatory Client, Perineal Care, Range of Motion for One Shoulder and Manual Blood Pressure). Programs were receptive with multiple questions during and at the completion of the presentation.

  o Active Applications: 11
  o New programs in 2023: 5

PUBLIC COMMENT: None was received

EDUCATION (cont.):   **Education Update:**

Medication Aide Program Updates
- "New/Pilot" - Christine Smith will be offering virtual education seminars (review of regulatory compliance 1.5 hours) to medication aide programs. The first one is May 18, 2023. We are starting with scheduling 2 and will assess success to determine how to best continue.

- Board staff continue to work with PSI. PSI completed a job analysis this year and a meeting was held on February 16 to review the results of the analysis as the next step in bolstering the current testing bank with additional questions. In preparation to increase the number of questions on the state exam, item writing training was hosted by PSI on March 7 and included board staff and a committee of stakeholders. The committee will meet again in late spring to review and revise newly written test questions.

  o Board Staff continue to verify active programs
    ▪ Total Number of programs: continues to fluctuate as we make contact and receive information from programs. ~242
  o Active Applications: 10
  o New programs in 2023: 4

Nursing Education Program Updates
- Annual Report has been completed by all programs and has been provided to HWDC for analysis of results. They will be provided to the Board once they are completed.

- Next Generation NCLEX (NGN) Preview Exam is available on www.NCLEX.com and NGN launches April 1, 2023 for RN and PN. The NCSBN webinars that were hosted by the Board in January are posted on the Board's website.
- NCSBN Annual Report was sent to all programs. There were 96 programs that completed the voluntary survey. NCSBN will provide results to the Board once they are compiled. 31 states are participating in the survey.

  - Active applications – there is one PN application that is active
  - New programs in 2022 – there were 2 new BSN, 1 new ADN and 3 PN programs approved
- Faculty Exceptions continue to be requested, mostly for clinical faculty positions

RECESS:	The Board recessed at 10:32 A.M.
RECONVENTION:	The Board reconvened at 10:42 A.M.
	Ms. Morris rejoined the meeting at 10:42 A.M.
LEGISLATION/ REGULATION:	Ms. Barrett reported the following:

F1 Chart of Regulatory Actions
Ms. Barrett provided an overview of the regulatory actions found in the chart.

F2 General Assembly 2023 Report
Ms. Barrett provided an overview of the 2023 GA Report

C13 – January 24, 2023 Regulatory Review Committee Meeting Minutes

Ms. Buchwald moved to accept the Regulatory Review Committee Meeting Minutes. The motion was seconded by Dr. Smith and carried unanimously.

F3 – Consideration of Notice of Intended Regulatory Action for revisions to Chapter 19 following periodic review

Ms. McElfresh moved to accept the recommendation to initiate a Notice of Intended Regulatory Action of Chapter 19 as presented. Ms. Parke seconded the motion and carried unanimously.

F4 - Consideration of Notice of Intended Regulatory Action for revisions to Chapter 21 following periodic review

Dr. Smith moved to accept the recommendation to initiate a Notice of Intended Regulatory Action of Chapter 21 as presented. Ms. Buchwald seconded the motion and carried unanimously.

F5 – Initiation of Periodic Reviews of Chapter 25, 27 and 50

Mr. Hermansen-Parker moved to initiate periodic review of Chapter 25 regarding the regulations governing Certified Nurse Aides. The motion was seconded by Ms. Shah and carried unanimously.

Dr. Gleason moved to initiate periodic review of Chapter 27 regarding the regulations governing Nursing Educational Programs. The motion was seconded by Dr. Smith and carried unanimously.

Ms. Buchwald moved to initiate periodic review of Chapter 50 regulations governing the Licensed Massage Therapists. The motion was seconded by Dr. Parke and carried unanimously.

POLICY FORUM:

Dr. Yetty Shobo, Healthcare Workforce Data Center (HWDC) Executive Director, and Dr. Barbara Hodgdon, HWDC Deputy Executive Director
- *Virginia's Licensed Nurse Practitioner Workforce: 2022
- *Virginia's Licensed Nurse Practitioner Workforce: Comparison by Specialty

Dr. Shobo provided key findings of the 2022 reports:
Virginia's Licensed Nurse Practitioner (NP) Workforce: 2022
- o Trends in the NP Workforce – increase in Full Time Equivalency Unit (FTE) and number of licenses
- o Demographic Trends – percent female is stable and younger workforce
- o NP Population Pyramid – numerical gain in all age groups and proportional gain in younger age group
- o Educational Debt and Diversity – educational attainment stable, slight increase in % of debt, and significant increase in diversity
- o Retirement Intentions – percent retiring in the next decade increased and those retiring by age 65 declined
- o Northern Virginia has high concentration of NPs

Virginia's Licensed Nurse Practitioner Workforce: Comparison by Specialty – data from the 2021 and 2022 NP surveys
- o NP Workforce by Specialty – Certified Registered Nurse Anesthetists (CRNA), Certified Nurse Midwives (CNM) and Certified Nurse Practitioners (CNP)
- o Age and Gender Distribution
- o Education and Debt

- o Median Income
- o Primary Employment Sector
- o Top Establishments
- o Future Plans
- o Conclusion – the three groups have good employment prospects. However, significant differences by specialty exist on some measures.

Dr. Smith moved to accept the reports as presented. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.

CONSIDERATION OF CONSENT ORDERS:

G1 – Katie Allison Wilt, RN   0001-231763

Mr. Hermansen-Parker moved that the Board of Nursing accept the consent order for voluntary surrender for indefinitely suspension the license of **Katie Allison Wilt** to practice professional nursing in the Commonwealth of Virginia. The motion was seconded by Dr. Smith and carried unanimously.

G2 – Shelly rose Thorpe, RN   0001-257971

Mr. Hermansen-Parker moved that the Board of Nursing accept the consent order to indefinitely suspend the license of **Shelly rose Thorpe** to practice professional nursing in the Commonwealth of Virginia with suspension stayed contingent upon Ms. Thorpe's entry into a contract and compliance with all terms and conditions of the Virginia Health Practitioners' Monitoring Program (HPMP) for the period specified by the HPMP. The motion was seconded by Dr. Smith and carried unanimously.

G3 – Miok Yun Mardis, LMT   0019-014045

Mr. Hermansen-Parker moved that the Board of Nursing accept the consent order to indefinitely suspend the license of **Miok Yun Mardis** to practice massage therapy in the Commonwealth of Virginia until such time that Ms. Mardis provides written proof satisfactory to the Board of the completion of all continuing education required for the renewal of her license for the 2019-2021 and 2021-2023 renewal periods, as well as all continuing education required for the reinstatement of her license. The motion was seconded by Dr. Smith and carried unanimously.

G4 – Jessica Lynn McLaughlin, LPN   0002-096541

Mr. Hermansen-Parker moved that the Board of Nursing accept the consent order to indefinitely suspend the license of **Jessica Lynn McLaughlin** to practice practical nursing in the Commonwealth of Virginia for a period of not less than one year from the date of entry of the Order. The motion was seconded by Dr. Smith and carried unanimously.

G5 – Jennifer Ann Apple, LPN   **0002-082255**

Mr. Hermansen-Parker moved that the Board of Nursing accept the consent order to reprimand **Jennifer Ann Apple** and to suspend her license to practice practical nursing in the Commonwealth of Virginia with suspension stayed contingent upon Ms. Apple's entry into a contract and compliance with all terms and conditions of the Virginia Health Practitioners' Monitoring Program (HPMP) for the period specified by the HPMP. The motion was seconded by Dr. Smith and carried unanimously.

G6 – Tracie H. Flynn, LPN   **0002-075919**

Mr. Hermansen-Parker moved that the Board of Nursing accept the consent order to indefinitely suspend the license of **Tracie H. Flynn** to practice practical nursing in the Commonwealth of Virginia with suspension stayed contingent upon Ms. Flynn's continued compliance with all terms and conditions of the Virginia Health Practitioners' Monitoring Program (HPMP) for the period specified by the HPMP. The motion was seconded by Dr. Smith and carried unanimously.

G7 – Wilfred Locop Nave, RN   **0001-272315**

Mr. Hermansen-Parker moved that the Board of Nursing accept the consent order to revoke the license of Wilfred Locop Nave to practice professional nursing in the Commonwealth of Virginia. The motion was seconded by Dr. Smith and carried unanimously.

RECESS:	The Board recessed at 11:57 A.M.
RECONVENTION:	The Board reconvened at 1:00 P.M.
	Ms. Morris left the meeting at 1:00 P.M.

CONSIDERATION OF POSSIBLE SUMMARY SUSPENSION:

Case 2180414/218376

Sean Murphy, Senior Assistant Attorney General, presented evidence that the continued practice of professional nursing by **Gregory Williams, RN (0001-289540)** may present a substantial danger to the health and safety of the public.

Mr. Hermansen-Parker moved to summarily suspend the license of Gregory Williams to practice professional nursing pending a formal administrative

hearing and to offer a consent order for indefinite suspension for a period of not less than one year from the date of entry of the Order. The motion was seconded by Dr. Dorsey and carried unanimously.

Case 219506/225204
David Robinson, Senior Assistant Attorney General, presented evidence that the continued practice of practical nursing by **Ashley Dixon, LPN (0002-090060)** may present a substantial danger to the health and safety of the public.

CLOSED MEETING: Ms. McElfresh moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 1:25 P.M., for the purpose of deliberation to reach a decision in the matter of **Ashley Dixon, LPN**. Additionally, Ms. McElfresh moved that Dr. Hills, Ms. Wilmoth, Ms. Bargdill, Ms. Willinger, Ms. Dewey, Ms. Iyengar, Ms. Christine Smith, Dr. Mangrum, Ms. Vu and Ms. Booberg attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.

RECONVENTION: The Board reconvened in open session at 1:31 P.M.

Ms. McElfresh moved that the Board of Nursing certify that it heard, discussed, or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Ms. Buchwald and carried unanimously.

Mr. Hermansen-Parker moved to summarily suspend the license of **Ashley Dixon** to practice practical nursing pending a formal administrative hearing and to offer a consent order for indefinite suspension of her license with suspension stayed contingent upon Ms. Dixon's entry into a contract and compliance with all terms and conditions of the Virginia Health Practitioners' Monitoring Program (HPMP) for the period specified by the HPMP in lieu of a formal hearing. The motion was seconded by Dr. Smith and carried unanimously.

E1 – February 22, 2023 Education Informal Conference Committee DRAFT minutes

Tracy Ortelli, PhD, RN, CNE, Executive Vice President of Teaching and Learning Innovation, and Lisa Peak, DNP, RN, CNE, Regional Dean of Pre-Licensure Programs, from Gallen College ADN Program, Richmond Campus, were present and Dr. Ortelli addressed the Board regarding the recommendation.

CLOSED MEETING: Ms. McElfresh moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 1:39 P.M., for the purpose of deliberation to reach a decision in the matter of **Gallen College, ADN Program, Richmond Campus**. Additionally, Ms. McElfresh moved that Dr. Hills, Ms. Bargdill, Ms. Willinger, Ms. Dewey, Ms. Iyengar, Dr. Mangrum, Ms. Hardy, Ms. Vu and Ms. Booberg attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Ms. Shah and carried unanimously.

Dr. Gleason, Ms. Christine Smith and Ms. Wilmoth left the meeting at 1:39 P.M.

Dr. Dorsey recused herself from the closed meeting.

RECONVENTION: The Board reconvened in open session at 1:51 P.M.

Ms. McElfresh moved that the Board of Nursing certify that it heard, discussed, or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.

Dr. Gleason, Dr. Dorsey, Ms. Christine Smith and Ms. Wilmoth rejoined the meeting at 1:51 P.M.

Ms. Shah moved that the Board of Nursing accept the recommendation of the Education Informal Conference Committee to deny the request from Galen College ADN Program, Richmond Campus, for an increase enrollment by 200 students per calendar year. The motion was seconded by Ms. Buchwald and carried unanimously.

Mr. Hermansen-Parker moved to accept the February 22, 2023 Education Informal Conference Committee DRAFT minutes (**E1**) as presented. The motion was seconded by Dr. Parke and carried unanimously.

CONSIDERATION OF FEBRUARY 22, 2023 EDUCATION INFORMAL CONFERENCE COMMITTEE RECOMMENDATIONS:

Dr. Smith moved that the Board of Nursing accept the recommendations of the Education Informal Conference Committee to withdraw the approval of the following programs to operate a medication aide training program:

- Legacy Consultant Pharmacy, Medication Aide Training Program, Winston-Salem, NC, 0030000030
- M&M Education Nursing Staff Services, Medication Aide Training Program, Virginia Beach, 0030000190
- Madonna Home, Inc. Medication Aide Training Program, Norfolk, 0030000131 – written response was submitted to the Board
- Renhearts Training Services, LLC, Medication Aide Training Program, Henrico, 0030000310
- RMA Training by Angel, Medication Aide Training Program, Abingdon, 0030000322
- Roselawn Rest Home, Inc., Medication Aide Training Program, Castlewood, 0030000148
- T&L Learning Center, Medication Aide Training Program, Norfolk, 0030000265
- The Landmark Group, Medication Aide Training Program, Hillsville, 0030000206
- Trinity Assisted Living, Medication Aide Training Program, Williamsburg, 0030000239
- Visions Family Services, Medication Aide Training Program, Petersburg, 0030000250

The motion was seconded by Dr. Dorsey and carried unanimously.

- Medical Learning Center, Practical Nursing Program, Alexandria, US28110500 – written response was submitted to the Board

Dr. Smith moved that the Board of Nursing accept the recommendation of the Education Informal Conference Committee to withdraw the approval of Medical Learning Center, Practical Nursing Program, Alexandria, to operate a practical nursing education training program and shall be closed no later than September 30, 2023. The motion was seconded by Dr. Dorsey and carried unanimously.

- Salvation Academy, Alexandria, Nurse Aide Education Program, 1414100689

Dr. Smith moved that the Board of Nursing accept the recommendation of the Education Informal Conference Committee to withdraw the approval of Salvation Academy, Alexandria, Nurse Aide Education Program, to operate a nurse aide education training program. The motion was seconded by Dr. Dorsey and carried unanimously.

CONSIDERATION OF AGENCY SUBORDINATE RECOMMENDATIONS:

#17 – Megan Rigney Ortiz, RN   **0001-277238**
Ms. Ortiz appeared and addressed the Board. Ms. Ortiz also submitted a written response.

Dr. Dorsey disclosed that she is aware of Ms. Ortiz's employment at the HCA hospital but does not know Ms. Ortiz. Dr. Dorsey added that she feels she can evaluate objectively. There was no objection to her participation from the Board.

CLOSED MEETING: Ms. McElfresh moved that the Board of Nursing convene a closed meeting pursuant to Section 2.2-3711(A)(27) of the *Code of Virginia* at 2:02 P.M. for the purpose of considering the agency subordinate recommendation regarding **Megan Rigney Ortiz**. Additionally, Ms. McElfresh moved that Dr. Hills, Ms. Bargdill, Ms. Wilmoth, Ms. Willinger, Ms. Dewey, Ms. Iyengar, Ms. Christine Smith, Dr. Mangrum, Ms. Hardy, Ms. Vu, and Ms. Booberg, Board Counsel, attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was properly seconded by Mr. Hermansen-Parker and carried unanimously.

RECONVENTION: The Board reconvened in open session at 2:19 P.M.

Ms. McElfresh moved that the Board of Nursing certify that it heard, discussed and considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was properly seconded by Dr. Smith and carried unanimously.

Dr. Parke moved that the Board of Nursing accept the recommendation of the agency subordinate to take no action at this time against **Megan Rigney Ortiz** contingent upon of Ms. Ortiz's entry into a contract with the Virginia Health Practitioners' Monitoring Program (HPMP) and remain in compliance with all terms and conditions of the HPMP for the period specified by the HPMP. The motion was seconded by Ms. McElfresh with six votes in favor of the motion. Ms. Buchwald, Ms. Cartte, Dr. Dorsey, Ms. Friedenberg and Dr. Gleason opposed the motion.

Ms. Morris re-joined the meeting at 2:21 P.M.

#21 – Kizzy Renea Fowlkes, LPN   0002-087569
Mr. Fowlkes appeared and addressed the Board.

CLOSED MEETING: Ms. McElfresh moved that the Board of Nursing convene a closed meeting pursuant to Section 2.2-3711(A)(27) of the *Code of Virginia* at 2:24 P.M. for the purpose of considering the agency subordinate recommendation regarding **Kizzy Renea Fowlkes**. Additionally, Ms. McElfresh moved that Dr. Hills, Ms. Bargdill, Ms. Wilmoth, Ms. Willinger, Ms. Dewey, Ms. Iyengar, Ms. Christine Smith, Dr. Mangrum, Ms. Hardy, Ms. Vu, and Ms. Booberg, Board Counsel, attend the closed meeting because their presence in the closed

meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was properly seconded by Ms. Shah and carried unanimously.

RECONVENTION: The Board reconvened in open session at 2:38 P.M.

Ms. McElfresh moved that the Board of Nursing certify that it heard, discussed and considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was properly seconded by Mr. Hermansen-Parker and carried unanimously.

Ms. McElfresh moved that the Board of Nursing accept the recommended decision of the agency subordinate to revoke the license of **Kizzy Renea Fowlkes** to practice practical nursing in the Commonwealth of Virginia. The motion was seconded by Dr. Parke and carried with nine votes in favor of the motion. Ms. Buchwald and Ms. Cartte opposed the motion.

RECESS: The Board recessed at 2:39 P.M.

RECONVENTION: The Board reconvened at 2:50 P.M.

#18 – Anna Marie Day, CNA   **1401-190095**
Ms. Day appeared and addressed the Board. She was accompanied by her legal counsel, Elizabeth Dahl Coleman, Esq., Mellette PC.

CLOSED MEETING: Ms. McElfresh moved that the Board of Nursing convene a closed meeting pursuant to Section 2.2-3711(A)(27) of the *Code of Virginia* at 2:53 P.M. for the purpose of considering the agency subordinate recommendation regarding **Anna Marie Day**. Additionally, Ms. McElfresh moved that Dr. Hills, Ms. Morris, Ms. Bargdill, Ms. Wilmoth, Ms. Willinger, Ms. Dewey, Ms. Iyengar, Ms. Christine Smith, Dr. Mangrum, Ms. Hardy, Ms. Vu, and Ms. Booberg, Board Counsel, attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was properly seconded by Ms. Shah and carried unanimously.

RECONVENTION: The Board reconvened in open session at 3:01 P.M.

Ms. McElfresh moved that the Board of Nursing certify that it heard, discussed and considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by

which the closed meeting was convened. The motion was properly seconded by Dr. Smith and carried unanimously.

Ms. McElfresh moved that the Board of Nursing accept the recommended decision of the agency subordinate to reprimand **Anna Marie Day** and to require Ms. Day to provide written proof, within 90 days of entry of the Order, satisfactory to the Board of successful completion of Board-approved continuing education in the following courses:
- ➢ 3.6 hours in sharpening critical thinking skills,
- ➢ 5.0 hours in patient abandonment, and
- ➢ 10.2 hours in ethics and professional accountability

The motion was seconded by Ms. Shah and carried with eight votes in favor of the motion. Ms. Cartte, Dr. Gleason and Mr. Hermansen-Parker opposed the motion.

#3 – Kelly Michele Southard, RN   0001-276303
Mr. Southard did not appear.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to indefinitely suspend the license of **Kelly Michele Southard** to practice professional nursing in the Commonwealth of Virginia with suspension stayed contingent upon proof of Ms. Southard's entry into a contract with the Virginia Health Practitioners' Monitoring Program (HPMP) within 60 days from the date of entry of the Order and remain in compliance with all terms and conditions of the HPMP for the period specified by the HPMP. The motion was seconded by Ms. Shah and carried unanimously.

#4 – Donna Christine Arthur, LPN   0002-082511
Ms. Arthur did not appear.

Dr. Dorsey disclosed that she is aware of Ms. Arthur's employment at the HCA hospital but does not know Ms. Arthur. Dr. Dorsey added that she feels she can evaluate objectively. There was no objection to her participation from the Board.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to suspend the license of Donna Christine Arthur to practice practical nursing in the Commonwealth of Virginia with suspension stayed contingent upon proof of Ms. Arthur's entry into a contract with the Virginia Health Practitioners' Monitoring Program (HPMP) within 60 days from the date of entry of the Order and remain in compliance with all terms and conditions of the HPMP for the period specified by the HPMP . The motion was seconded by Ms. Shah and carried unanimously.

#5 – Joyce Gammon Faye Weatherford, RN   **0001-138970**
Ms. Weatherford did not appear.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to reprimand **Joyce Gammon Faye Weatherford** and to require Ms. Weatherford, within 60 days from the date of entry of the Order, to provide written proof satisfactory to the Board of successful completion of Board-approved courses of at least three contact hours each in the subjects of:
- ➢ Professional boundaries in nursing,
- ➢ Ethics and professionalism in nursing, and
- ➢ Proper documentation.

The motion was seconded by Ms. Shah and carried unanimously.

#7 – Viveca De La Pena, RN   **Texas License No. 718871**
          With Multi-state Privilege

Ms. De La Pena did not appear.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to reprimand **Viveca De La Pena** and to require Ms. De La Pena, within 60 days from the date of entry of the Order, to provide written proof satisfactory to the Board of successful completion of Board-approved courses of at least three contact hours in each of the following two subjects:
- ➢ Medication Errors/Proper Handling & Documentation of Medications, and
- ➢ Professional Accountability & Legal Liability for Nurses.

The motion was seconded by Ms. Shah and carried unanimously.

#8 – Renee Danielle Massey, CNA   **1401-072655**
Ms. Massey did not appear.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to indefinitely suspend the certificate of **Renee Danielle Massey** to practice as a nurse aide in the Commonwealth of Virginia and to enter a Finding of Neglect against her in the Virginia Nurse Aide Registry. The motion was seconded by Ms. Shah and carried unanimously.

#10 – Yolanda Edmonds Saunders, CNA   **1401-202225**
Ms. Saunders did not appear.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to reprimand **Yolanda Edmonds Saunders**. The motion was seconded by Ms. Shah and carried unanimously.

#11 – Stephanie Campbell Ogden, RN   **0001-156793**
Ms. Ogden did not appear.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to reprimand **Stephanie Campbell Ogden**. The motion was seconded by Ms. Shah and carried unanimously.

#12 – Michelle Nicole McClelland, RN   **0001-220138**
Ms. McClelland did not appear.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to indefinitely suspend the license of **Michelle Nicole McClelland** to practice professional nursing in the Commonwealth of Virginia with suspension stayed contingent upon proof of Ms. Arthur's entry into a contract with the Virginia Health Practitioners' Monitoring Program (HPMP) and remain in compliance with all terms and conditions of the HPMP for the period specified by the HPMP. The motion was seconded by Ms. Shah and carried unanimously.

#14 – Kristin S. Campbell, RN   **0001-239209**
Ms. Campbell did not appear.

Mr. Jones and Ms. Shah disclosed that they are aware of Ms. Campbell's employment at the Carilion Roanoke Memorial Hospital but do not know Ms. Campbell. They added that they feel they can evaluate objectively. There was no objection to her participation from the Board.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to indefinitely suspend the license of **Kristin S. Campbell** to practice professional nursing in the Commonwealth of Virginia with suspension stayed contingent upon proof of Ms. Campbell's entry into a contract with the Virginia Health Practitioners' Monitoring Program (HPMP) and remain in compliance with all terms and conditions of the HPMP for the period specified by the HPMP. The motion was seconded by Ms. Shah and carried unanimously.

#15 – William Dean Blevins, II, RN   **0001-217180**
Mr. Blevins did not appear but submitted a written response.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to indefinitely suspend the license of **William Dean Blevins, II** to practice professional nursing in the Commonwealth of Virginia with suspension stayed contingent upon proof of Mr. Blevins' entry into a contract with the Virginia Health Practitioners' Monitoring Program (HPMP) and remain in compliance with all terms and conditions of the HPMP for the period specified by the HPMP. The motion was seconded by Ms. Shah and carried unanimously.

#16 – Shirley Darlen Abouhassoun-Semlali, RN   **0001-145767**
Ms. Abouhassoun-Semlali did not appear.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to indefinitely suspend the right of **Shirley Darlen Abouhassoun-Semlali** to renew her license to practice professional nursing in the Commonwealth of Virginia for a period of not less than two years from date of entry of the Order. The motion was seconded by Ms. Shah and carried unanimously.

#22 – Laura Leigh Lantz, RMA   **0031-010152**
Ms. Lantz did not appear but submitted a written response.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to reprimand Laura Leigh Lants and to indefinitely suspend her registration to practice as a medication aide in the Commonwealth of Virginia. The motion was seconded by Ms. Shah and carried unanimously.

#24 – Jessica Lorraine Sears, RMA   **0031-010887**
Ms. Sears did not appear.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to suspend the registration of **Jessica Lorraine Sears** to practice as a medication aide in the Commonwealth of Virginia for a minimum period of one year. The motion was seconded by Ms. Shah and carried unanimously.

#25 – Christine Kaye Meadows, LPN   **0002-073332**
Mr. Meadows did not appear but submitted a written response.

Dr. Smith moved that the Board of Nursing accept the recommended decision of the agency subordinate to revoke the license of **Christine Kaye Meadows**

to practice practical nursing in the Commonwealth of Virginia. The motion was seconded by Ms. Shah and carried unanimously.

CLOSED MEETING: Ms. McElfresh moved that the Board of Nursing convene a closed meeting pursuant to Section 2.2-3711(A)(27) of the *Code of Virginia* at 3:11 P.M. for the purpose of considering the agency subordinate recommendations regarding **1, 2, 6, 9, 13, 19, 20 and 23**. Additionally, Ms. McElfresh moved that Ms. Morris, Ms. Bargdill, Ms. Wilmoth, Ms. Willinger, Ms. Christine Smith, Dr. Mangrum, Ms. Hardy, Ms. Vu, and Ms. Booberg, Board Counsel, attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was properly seconded by Mr. Hermansen-Parker and carried unanimously.

Dr. Mangrum left the meeting at 3:32 P.M.

RECONVENTION: The Board reconvened in open session at 3:50 P.M.

Ms. McElfresh moved that the Board of Nursing certify that it heard, discussed and considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was properly seconded by Mr. Hermansen-Parker and carried unanimously.

#1 – Christina Pacileo Blottner, RN   **0001-173925**
Ms. Blottner did not appear.

Dr. Dorsey disclosed that she is aware of Ms. Blottner's employment at the HCA hospital but does not know Ms. Blottner. Dr. Dorsey added that she feels she can evaluate objectively. There was no objection to her participation from the Board.

Dr. Parke moved that the Board of Nursing modify the recommended decision of the agency subordinate as follows:
  ➤ The last sentence in Fining of Facts and Conclusions Law #3 to read "*Further, Ms. Blottner admitted that she did not communicate with her collaborating physician because she knew the referral would not likely be approved, and that she failed to document that she made this referral in Patient's A medical record.*"
  ➤ Within 90 days from the date of entry of the Order, Ms. Blottner shall provide written proof satisfactory to the Committee of successful completion of Board-approved courses of at least six credit hours in the subject of professional boundaries.

The motion was seconded by Ms. Buchwald and carried unanimously.

#2 – Debra Lynn Cox, RN   **0001-109173**
Ms. Cox did not appear.

Dr. Gleason moved that the Board of Nursing amend the recommended decision of the agency subordinate to include unit of measurement in each place where the serum alcohol level is mentioned and to infinitely suspend the license of **Debra Lynn Cox** to practice professional nursing in the Commonwealth of Virginia with suspension stayed contingent upon proof of Ms. Cox's entry into a contract with the Virginia Health Practitioners' Monitoring Program (HPMP) within 60 days of the date of entry of the Order and remain in compliance with all terms and conditions of the HPMP for the period specified by the HPMP. The motion was seconded by Dr. Smith and carried unanimously.

#6 – Julie Gill Seymour, RN   **0001-192893**
Ms. Seymour did not appear.

Dr. Dorsey disclosed that she is aware of Ms. Seymour's employment at the HCA hospital but does not know Ms. Seymour. Dr. Dorsey added that she feels she can evaluate objectively. There was no objection to her participation from the Board.

Ms. McElfresh moved that the Board of Nursing accept the recommended decision of the agency subordinate to reprimand **Julie Gill Seymour** and within 60 days from the date of entry of the Order to require Ms. Seymour to provide written proof of successful completion of Board-approved courses of at least three contact hours each in the subjects of:
  ➢ Ethics and Professionalism in Nursing, and
  ➢ Professional Accountability and Legal Liability for Nurses

The motion was seconded by Dr. Smith and carried with 10 votes in favor of the motion. Ms. Shah opposed the motion.

#9 – Dyhiana Sharday Morgan Wallace, CNA   **1401-206169**
Ms. Wallace did not appear.

Mr. Hermansen-Parker moved that the Board of Nursing table the recommended decision of the agency subordinate regarding **Dyhiana Sharday Morgan Wallace** due to her certificate to practice as a nurse aide is not within renewal period. The motion was seconded by Ms. Buchwald and carried unanimously.

#**13 – Constance Anne Bailey, LPN**   **0002-083010**
Ms. Bailey did not appear.

Dr. Parke moved that the Board of Nursing amend the recommended decision of the agency subordinate to specify minimum of three contact hours in each

courses, to reprimand **Constance Anne Bailey,** and to place Ms. Bailey on probation subject to terms and conditions. The motion was seconded by Ms. McElfresh and carried unanimously.

#19 – Dimon Solomon, CNA   **1401-174073**
Ms. Solomon did not appear.

Dr. Gleason moved that the Board of Nursing amend the recommended decision of the agency subordinate to reword the last sentence in Findings of Fact # 4b to read "*However, as detailed above, Respondent was convicted of misdemeanor petit larceny charge in March 2017*," to revoke the certificate of **Dimon Solloman** to practice as a nurse aide in the Commonwealth of Virginia, and to enter a Finding of Abuse against her in the Virginia Nurse Aide Registry. The motion was seconded by Ms. Buchwald and carried unanimously.

#20 – Tina Maria Haskins, LPN   **0002-080257**
Ms. Haskins did not appear.

Ms. Cartte moved that the Board of Nursing modify the recommended decision of the agency subordinate reprimand **Tina Maria Haskins** and within 90 days from the date of entry of the Order to require Ms. Haskins to provide written proof of successful completion of Board-approved course of six contact hours in the subjects of Ethics and Professionalism in Nursing. The motion was seconded by Dr. Parke and carried with 10 votes in favor of the motion. Dr. Smith opposed the motion.

#23 – Sheila N. White, CNA   **1401-023961**
Ms. White did not appear.

Ms. Cartte moved that the Board of Nursing reject the recommended decision of the agency subordinate regarding **Sheila N. White** and refer the matter to a formal hearing. The motion was seconded by Dr. Smith and carried unanimously.

MEETING DEBRIEF: **Board Members listed the following positive aspects of the meeting**:
- The formatting of the Agency Subordinate Recommendation #7 is very clear
- Having DHP Director attending the meeting is valuable which helps Board Members to understand what the Board and staff are dealing with
- The ability of Board Members to provide input on survey questions
- Nice spread of motions made

Board Members made the following suggestions for improvement:
- Too many Agency Subordinate recommendations are considered during the business meeting

ADJOURNMENT: The Board adjourned at 3:57 P.M.

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Brandon A. Jones, MSN, RN, CEN, NEA-BC
President

VIRGINIA BOARD OF NURSING
FORMAL HEARINGS
PANEL A
March 22, 2023

TIME AND PLACE:	The meeting of the Virginia Board of Nursing was called to order at 1:08 P.M., on March 22, 2022, in Board Room 4, Department of Health Professions, 9960 Mayland Drive, Suite 201, Henrico, Virginia.
BOARD MEMBERS PRESENT:	Brandon A. Jones, MSN, RN, CEN, NEA-BC; President Laurie Buchwald, MSN, WHNP, FNP Carol Cartte, RN, BSN Yvette L. Dorsey. DNP, RN Ann T. Gleason, PhD, Citizen Member Dixie L. McElfresh, LPN
STAFF PRESENT:	Robin Hills DNP, RN, WHNP, Deputy Executive Director for Advanced Practice Christina Bargdill, BSN, MHS, RN; Deputy Executive Director Sylvia Tamayo-Suijk, Senior Nursing Discipline Specialist
OTHERS PRESENT:	Laura A. Booberg, Assistant Attorney General, Board Counsel
ESTABLISHMENT OF A PANEL:	With six members of the Board present, a panel was established.
FORMAL HEARINGS:	**Anna Christine Gemerek, RN 0001-221755** Ms. Gemerek appeared. David Kazzie, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Ms. Booberg was legal counsel for the Board. L. Kim Taylor, court reporter with Farnsworth and Taylor Reporting, LLC, recorded the proceedings. Sherry Gibson, Senior Investigator, Enforcement Division, Debra Hay-Pierce, former Senior Investigator, Madeline Powell, Behavioral Specialist, Cumberland Hospital, Amanda Hayes-Wilkins, Nurse Supervisor, Cumberland Hospital, were present and testified.
RECESS:	The Board recessed at 2:32 P.M.
RECONVENTION:	The Board reconvened at 2:39 P.M.

Virginia Board of Nursing
Panel A - Formal Hearings
March 22, 2023

CLOSED MEETING: Ms. Cartte moved that the Board of Nursing convene a closed meeting
                       pursuant to §2.2-3711(A)(27) of the Code of Virginia at 3:36 P.M., for
                       the purpose of deliberation to reach a decision in the matter of **Anna
                       Christine Gemerek.** Additionally, Ms. Cartte moved that Dr. Hills, Ms.
                       Bargdill, Ms. Tamayo-Suijk and Ms. Booberg attend the closed meeting
                       because their presence in the closed meeting is deemed necessary and
                       their presence will aid the Board in its deliberations. The motion was
                       seconded by Dr. Dorsey and carried unanimously.

RECONVENTION: The Board reconvened in open session at 4:26 P.M.

                       Dr. Dorsey moved that the Board of Nursing certify that it heard,
                       discussed, or considered only public business matters lawfully exempted
                       from open meeting requirements under the Virginia Freedom of
                       Information Act and only such public business matters as were identified
                       in the motion by which the closed meeting was convened. The motion
                       was seconded by Ms. Buchwald and carried unanimously.

ACTION: Ms. Cartte moved that the Board of Nursing issue a reprimand to **Anna
                       Christine Gemerek** to practice as a professional nurse in the
                       Commonwealth of Virginia and require continuing education in ethics
                       and professionalism in nursing, sharpening critical thinking, and
                       professional boundaries in nursing. Three hours of each course for a
                       total of nine hours. The motion was seconded by Dr. Dorsey and carried
                       unanimously.

                       This decision shall be effective upon entry by the Board of a written
                       Order stating the findings, conclusion, and decision of this formal
                       hearing panel.

ADJOURNMENT: The Board adjourned at 4:28 P.M.

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                       Christina Bargdill, BSN, MHS, RN
                       Deputy Executive Director

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VIRGINIA BOARD OF NURSING
FORMAL HEARINGS
PANEL B
March 22, 2023

TIME AND PLACE:	The meeting of the Virginia Board of Nursing was called to order at 9:00 A.M., on March 22, 2023 in Board Room 3, Department of Health Professions, 9960 Mayland Drive, Suite 201, Henrico, Virginia.
BOARD MEMBERS PRESENT:	Felisa A. Smith, PhD, MSA, RN, CNE; Second Vice-President Margaret Friedenberg, Citizen Member James L. Hermansen-Parker Helen Parke, DNP, FNP-BC Meenakshi Shah, BA, RN
STAFF PRESENT:	Lelia Claire Morris, RN, LNHA; Deputy Executive Director Breana Wilkins, Administrative Support Specialist Ann Hardy, MSN, RN, Compliance and Case Adjudication Manager
OTHERS PRESENT:	M. Brent Saunders, Assistant Attorney General
ESTABLISHMENT OF A PANEL:	With five members of the Board present, a panel was established.
FORMAL HEARING:	**Chatera Nashe Easton, LPN Reinstatement Applicant 0002-092046** Ms. Easton appeared. Claire Foley, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Mr. Saunders was legal counsel for the Board. William H. Darden Jr., court reporter, County Court Reporters Inc., recorded the proceedings. Gary Bailey, Senior Investigator, Enforcement Division and Jay Paff, Senior Investigator, Enforcement Division, were present and testified.
CLOSED MEETING:	Mr. Hermansen-Parker moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 9:59 A.M., for the purpose of deliberation to reach a decision in the matter of **Chatera Nashe Easton.** Additionally, Mr. Hermansen-Parker moved that Ms. Morris, Ms. Wilkins, Ms. Hardy and Mr. Saunders, board counsel, attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Dr. Parke and carried unanimously.

RECONVENTION:	The Board reconvened in open session at 10:32 A.M.
	Mr. Hermansen-Parker moved that the Board of Nursing certify that it heard, discussed or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Dr. Parke and carried unanimously.
ACTION:	Ms. Shah moved that the Board of Nursing deny the application of **Chatera Nashe Easton** for reinstatement of her license to practice practical nursing in the Commonwealth of Virginia and continue suspension order. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.
	This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel.
RECESS:	The Board recessed at 10:33 A.M.
RECONVENTION:	The Board reconvened at 11:00 A.M.
FORMAL HEARING:	**Cassandra Michelle Wilson, CNA** **1401-096752**
	Ms. Wilson did not appear.
	Mandy Wilson, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Mr. Saunders was legal counsel for the Board. William H. Darden Jr., court reporter with County Court Reporters Inc., recorded the proceedings.
	Meghan Wingate, Senior Investigator, Enforcement Division, Maria Joson, Senior Investigator, Enforcement Division, and Gwen Dublin, Resident Care Aide were present and testified.
CLOSED MEETING:	Mr. Hermansen-Parker moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 11:44 A.M., for the purpose of deliberation to reach a decision in the matter of **Cassandra Michelle Wilson.** Additionally, Mr. Hermansen-Parker moved that Ms. Morris, Ms. Wilkins, Ms. Hardy and Mr. Saunders, board counsel, attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its

	deliberations. The motion was seconded by Dr. Parke and carried unanimously.
RECONVENTION:	The Board reconvened in open session at 12:20 P.M.
	Mr. Hermansen-Parker moved that the Board of Nursing certify that it heard, discussed or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Ms. Shah and carried unanimously.
ACTION:	Dr. Parke moved that the Board of Nursing indefinitely suspend the Nurse Aide Certification and the Medication Aide Registration of **Cassandra Michelle Wilson** for a period of not less than one year. The motion was seconded by Ms. Shah and carried unanimously.
	This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel.
RECESS:	The Board recessed at 12:22 P.M.
RECONVENTION:	The Board reconvened at 1:00 P.M.
FORMAL HEARING:	**Amber Pinkard, CNA** **1401-173684**
	Ms. Pinkard appeared, accompanied by her husband.
	Mandy Wilson, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Mr. Saunders was legal counsel for the Board. William H. Darden Jr., court reporter with County Court Reporters Inc., recorded the proceedings.
	Stephen Shirley, Senior Investigator, Enforcement Division, Amy Ressler, Health Practitioners' Monitoring Program (HPMP) were present and testified.
RECESS:	The Board recessed at 2:00 P.M.
RECONVENTION:	The Board reconvened at 2:04 P.M.

CLOSED MEETING:	Mr. Hermansen-Parker moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 2:52 P.M., for the purpose of deliberation to reach a decision in the matter of **Amber Pinkard.** Additionally, Mr. Hermansen-Parker moved that Ms. Morris, Ms. Wilkins, Ms. Hardy and Mr. Saunders, board counsel, attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Ms. Shah and carried unanimously.
RECONVENTION:	The Board reconvened in open session at 3:11 P.M. Mr. Hermansen-Parker moved that the Board of Nursing certify that it heard, discussed, or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Ms. Friedenberg and carried unanimously.
ACTION:	Dr. Parke moved that the Board of Nursing indefinitely suspend the certificate of **Amber Pinkard** to practice as a nurse aide in the Commonwealth of Virginia with suspension stayed contingent upon entry into and compliance with the Health Practitioners' Monitoring Program (HPMP). The motion was seconded by Ms. Shah and carried unanimously. This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel
ADJOURNMENT:	The Board adjourned at 3:12 P.M.

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Lelia Clare Morris, RN, LNHA
Deputy Executive Director

VIRGINIA BOARD OF NURSING
FORMAL HEARINGS
March 23, 2023

TIME AND PLACE:	The meeting of the Virginia Board of Nursing was called to order at 9:12 A.M., on March 23, 2023 in Board Room 4, Department of Health Professions, 9960 Mayland Drive, Suite 201, Henrico, Virginia.
BOARD MEMBERS PRESENT:	Felisa A. Smith, PhD, MSA, RN, CNE; Second Vice-President Laurie Buchwald, MSN, WHNP Yvette Dorsey, DNP, RN Margaret J. Friedenberg, Citizen Member Dixie L. McElfresh, LPN Helen Parke, DNP, FNP-BC
STAFF PRESENT:	Lelia Claire Morris, RN, LHNA; Deputy Executive Director Christina Bargdill, BSN, MHS, RN; Deputy Executive Director Sylvia Tamayo-Suijk, Senior Discipline Specialist Breana Wilkins, Administrative Support Specialist- **Joined at 1:30 P.M.**
OTHERS PRESENT:	Lura A. Booberg, Assistant Attorney General, Board Counsel Faculty and CNA Students from Alexandra High School
ESTABLISHMENT OF A PANEL:	With six members of the Board present, a panel was established.
FORMAL HEARING:	**Tanya Ann McInturff, RN** **0001-196402** Ms. McInturff appeared, accompanied by Ben McInturff. Mandy Wilson, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Ms. Booberg was legal counsel for the Board. Juan Ortega, court reporter with Ortega International Reporting, recorded the proceedings. Scott Dillon, Senior Investigator, Enforcement Division, Christopher Miller, Adult Protective Services, Wes Burgoyne, Investigator, Rockingham County Sherriff's office were present and testified.
RECESS:	The Board recesses at 10:45 A.M.
RECONVENTION:	The Board reconvened at 10:59 A.M.

CLOSED MEETING:	Ms. McElfresh moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 11:55 A.M., for the purpose of deliberation to reach a decision in the matter of **Tanya Ann McInturff.** Additionally, Ms. McElfresh moved that Ms. Morris, Ms. Bargdill, Ms. Tamayo-Suijk and Ms. Booberg, board counsel, attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Ms. Buchwald and carried unanimously.
RECONVENTION:	The Board reconvened in open session at 12:36 P.M.
	Ms. McElfresh moved that the Board of Nursing certify that it heard, discussed or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Dr. Dorsey and carried unanimously.
ACTION:	Ms. McElfresh moved that the Board of Nursing revoke the license of **Tanya Ann McInturff** to practice professional nursing in the Commonwealth of Virginia. The motion was seconded by Ms. Buchwald and carried unanimously.
	This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel.
RECESS:	The Board recesses at 12:37 P.M.
RECONVENTION:	The Board reconvened at 1:31 P.M.
	Ms. Tamayo-Suijk left the meeting at 12:37 P.M.
FORMAL HEARING:	**Aisha Simpson, LPN** **0002-062695**
	Ms. Simpson did not appear.
	Claire Foley, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Ms. Booberg was legal counsel for the Board. Juan Ortega, court reporter with Ortega International Reporting, recorded the proceedings.
	Brittany Kitchen, Senior Investigator, Enforcement Division, Sharon Lancaster, RN and Ryan Wiggins were present and testified.

CLOSED MEETING:	Ms. McElfresh moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(16) of the Code of Virginia at 1:58 P.M., for the purpose of deliberation to reach a decision in the matter of **Aisha Simpson**. Additionally, Ms. McElfresh moved that Ms. Morris, Ms. Bargdill, Ms. Wilkins and Ms. Booberg, board counsel, attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Dr. Dorsey and carried unanimously.
RECONVENTION:	The Board reconvened in open session at 2:25 P.M. Ms. McElfresh moved that the Board of Nursing certify that it heard, discussed or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Ms. Friedenberg and carried unanimously.
ACTION:	Dr. Parke moved that the Board of Nursing indefinitely suspend the practical nursing license of **Aisha Simpson** for a period of not less than two years. The motion was seconded by Ms. McElfresh and carried unanimously. This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel.
FORMAL HEARING:	**Stacey Lynn Roux, LPN** **0002-054672** Ms. Roux did not appear. Melissa Armstrong, Adjudication Specialist, Administrative Proceedings Division, represented the Commonwealth. Ms. Booberg was legal counsel for the Board. Juan Ortega, court reporter with Ortega International Reporting, recorded the proceedings. Tenille Taylor, N.H.A., Pamela Mitchell, RN, Dudley Haas, N.H.A., were present and testified. Thelma Hunter, former CNA, testified via telephone.
CLOSED MEETING:	Ms. McElfresh moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(16) of the Code of Virginia at 3:11 P.M., for the purpose of deliberation to reach a decision in the matter of **Stacey Lenn Roux**. Additionally, Ms. McElfresh moved that Ms. Morris, Ms. Bargdill, Ms. Wilkins and Ms. Booberg, board counsel, attend the closed meeting

because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Dr. Parke and carried unanimously.

RECONVENTION: The Board reconvened in open session at 3:31 P.M.

Ms. McElfresh moved that the Board of Nursing certify that it heard, discussed or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Ms. Buchwald and carried unanimously.

ACTION: Dr. Parke moved that the Board of Nursing indefinitely suspend the practical nursing license of **Stacey Lynn Roux** stay the suspension contingent upon entry into and compliance with Health Practitioners' Monitoring Program (HPMP) or a similar alternative to discipline program. The motion was seconded by Ms. McElfresh and carried unanimously.

This decision shall be effective upon entry by the Board of a written Order stating the findings, conclusion, and decision of this formal hearing panel.

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ADJOURNMENT: The Board adjourned at 3:32 P.M.

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Christina Bargdill, BSN, MHS, RN
Deputy Executive Director

VIRGINIA BOARD OF NURSING
POSSIBLE SUMMARY SUSPENSION TELEPHONE CONFERENCE CALL
April 10, 2023

A possible summary suspension telephone conference call of the Virginia Board of Nursing was held April 10, 2023, at 4:32 P.M.

The Board of Nursing members participating in the call were:

Brandon Jones, MSN, RN, CEN, NEA-BC; **Chair**
Carol Cartte, RN
Margaret Friedenberg, Citizen Member
A. Tucker Gleason, PhD, Citizen Member
James Hermansen-Parker, MSN, RN, PCCN-K
Paul Hogan, Citizen Member
Dixie L. McElfresh, LPN
Helen Parke, DNP, FNP-BC
Meenakshi Shah, BA, RN
Cynthia Swineford, RN, MSN, CEN

Others participating in the meeting were:

Laura Booberg, Senior Assistant Attorney General, Board Counsel
Rebecca Ribley, Adjudication Specialist, Administrative Proceedings Division
David Robinson, Senior Assistant Attorney General
Jay Douglas, RN, MSM, CSAC, FRE; Executive Director
Robin Hills, DNP, RN, WHNP; Deputy Executive Director for Advanced Practice
Claire Morris, RN, LNHA; Deputy Executive Director
Christina Bargdill, BSN, MHS, RN; Deputy Executive Director
Huong Vu, Operations Manager
Breana Wilkins, Administrative Support Specialist

The meeting was called to order by Mr. Jones. With 10 members of the Board of Nursing participating, a quorum was established.

David Robinson, Senior Assistant Attorney General, presented evidence that the continued practice of professional nursing by **Ta-Hesha Tawanna Hopkins-Collins, RN (0001-290366)** may present a substantial danger to the health and safety of the public.

CLOSED MEETING: Dr. Parke moved that the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 4:59 P.M., for the purpose of deliberation to reach a decision in the matter of **Ta-Hesha Tawanna Hopkins-Collins**. Additionally, Dr. Parke moved that Ms. Douglas, Ms. Morris, Ms. Bardgill, Dr. Hills, Ms. Vu and Ms. Booberg attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Board in its deliberations. The motion was seconded by Mr. Hogan and carried unanimously.

Mr. Robinson, Ms. Ribley and Ms. Wilkins left the meeting at 4:59 P.M.

Virginia Board of Nursing
Possible Summary Suspension Telephone Conference Call
April 10, 2023

RECONVENTION: The Board reconvened in open session at 5:14 P.M.

Mr. Robinson and Ms. Rebley re-joined the meeting at 5:15 P.M.

Dr. Parke moved that the Board of Nursing certify that it heard, discussed, or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Mr. Hermansen-Parker and carried unanimously.

Dr. Parke moved to summarily suspend the license of **TaHesha Tawanna Hopkins-Collins** to practice professional nursing pending a formal administrative hearing and to offer a consent order for indefinite suspension of her license in lieu of a formal hearing. The motion was seconded by Mr. Hogan and carried unanimously.

The meeting was adjourned at 5:16 P.M.

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Jay Douglas, MSM, RN, CSAC, FRE
Executive Director

Agency Subordinate Recommendation Tracking Trend Log - 2010 to Present – Board of Nursing

C2

Considered		Accepted		Modified*					Rejected					Final Outcome:** Difference from Recommendation				
Date	Total	Total	Total %	Total	Total %	# present	# ↑	# ↓	Total	Total %	# present	# Ref to FH	# Dis-missed	↑	↓	Same	Pend-ing	N/A
Total to Date:	905	815	90%	74	8%	11	45	14	17	2%	2	15	2	16	20	17	0	
CY 2023 to Date:	53	45	85%	5	9%	0	3	0	3	6%	0	3	0	2	2	2	0	
Mar-23	24	21	88%	2	8%	0	0	0	1	4%	0	1	0	2	2	2	0	
Jan-23	29	24	83%	3	10%	0	3	0	2	7%	0	2	0	0	0	0	0	
Annual Totals:																		
Total 2022	151	132	87%	14	9%	2	2	2	4	3%	0	4	0	1	0	0	0	
Total 2021	51	48	94%	5	10%	0	2	0	0	0%	0	0	0	3	4	1	0	
Total 2020	77	69	90%	6	8%	5	6	0	2	3%	0	2	0	4	0	0	N/A	
Total 2019	143	129	90%	12	8%	0	10	2	2	1%	2	0	2	0	0	1	N/A	
Total 2018	200	172	86%	24	12%	4	17	7	4	2%	0	4	0	4	10	7	N/A	
Total 2017	230	220	96%	8	3%	0	5	3	2	1%	0	2	0	2	4	6	N/A	

* Modified = Sanction changed in some way (does not include editorial changes to Findings of Fact or Conclusions of Law. ↑ = additional terms or more severe sanction. ↓ = lesser sanction or impose no sanction.

** Final Outcome Difference = Final Board action/sanction after FH compared to original Agency Subordinate Recommendation that was modified (then appealed by respondent to FH) or was Rejected by Board (& referred to FH).

Virginia Board of Nursing
DISCIPLINE COMMITTEE MEETING

March 21, 2023 Minutes

Time and Place:	The Board of Nursing Discipline Committee meeting was convened at 3:50pm. on March 21, 2023 in Board Room 2, Department of Health Professions, 9960 Mayland Drive, Suite 201, Henrico, Virginia.
Board Members Present:	James L. Hermansen-Parker, MSN, RN, PCCN-K, Chairperson Meenakshi Shah, BA, RN; RN Board Member
Staff Members Present:	Claire Morris, RN, LNHA; Deputy Executive Director for RN and LPN Discipline Christina Bargdill, BSN, MHS, RN Deputy Executive Director for LMT, RMA and CNA Robin L. Hills, DNP, RN, WHNP; Deputy Executive Director for Advanced Practice

The Committee met to review Guidance Documents 90-41 (Patient Abandonment by Care Providers) and regulations related to a CNA petitioning for the removal of a finding of neglect. The purpose of review was to establish a consistent understanding of both in order to move forward with purposeful board member education on both topics.

Regarding Guidance Document 90-41 (Patient Abandonment by Care Providers) the Committee agreed that each case must be viewed on an individual basis as many variables may play a role in how a case is adjudicated. The Committee requested board staff to collect representative sample cases regarding patient abandonment complaints for analysis.

Regarding CNA regulations related to a CNA petitioning for the removal of a single finding of neglect, the Committee would like to reiterate to the Board that a CNA may only petition the Board once to remove a single finding of neglect.

The next meeting date and time is to be determined.

The meeting was adjourned at 4:48pm.

COMMITTEE OF THE JOINT BOARDS OF NURSING AND MEDICINE
REQUEST FOR RECONSIDERATION OF FINAL DECISION
TELEPHONE CONFERENCE CALL - MINUTES
April 13, 2023

Pursuant to §2.2-4023.1, a telephone conference call of the Virginia Committee of the Joint Boards of Nursing and Medicine was held April 13, 2023, at 4:30 P.M. regarding the Request for Reconsideration of the final decision in the matter of **Melanie Dorion, LNP** received March 24, 2023.

The Committee of the Joint Boards members participating in the call were:
 Brandon Jones, MSN, RN, CEN, NEA-BC; BON Member; **Chair**
 Laurie Buchwald, MSN, WHNP, FNP, BON Member
 Helen Parke, DNP, FNP-BC; BON Member
 Blanton Marchese; BOM Member
 Joel Silverman, MD; BOM Member

Others participating in the meeting were:
 Laura Booberg, Senior Assistant Attorney General, Board Counsel
 Jay Douglas, RN, MSM, CSAC, FRE; Executive Director
 Robin Hills, DNP, RN, WHNP; Deputy Executive Director for Advanced Practice
 Christina Bargdill, BSN, MHS, RN; Deputy Executive Director
 Breana Wilkins, Administrative Support Specialist
 Nathan Kottkamp, Esq, attorney for Ms. Dorion

 The meeting was called to order by Mr. Jones. With five members of the Committee participating, a quorum was established.

CLOSED MEETING: Dr. Parke moved that the Committee of the Joint Boards of Nursing and Medicine convene a closed meeting pursuant to §2.2-3711(A)(27) of the Code of Virginia at 4:33 P.M., for the purpose of deliberation to reach a decision in the matter of **Melanie Dorion, LNP.** Additionally, Dr. Parke moved that Ms. Douglas, Dr. Hills, Ms. Bargdill, and Ms. Booberg attend the closed meeting because their presence in the closed meeting is deemed necessary and their presence will aid the Committee in its deliberations. The motion was seconded by Dr. Silverman and carried unanimously.

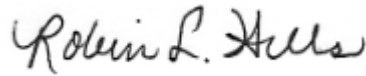**RECONVENTION:** The Committee reconvened in open session at 5:42 P.M.

Mr. Kottkamp rejoined.

Dr. Parke moved that the Committee certify that it heard, discussed, or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded by Ms. Buchwald and carried unanimously.

Committee of the Joint Boards of Nursing and Medicine
Request for Reconsideration of Final Decision
Telephone Conference Call - April 13, 2023

Dr. Parke moved to modify the May 9, 2023 decision in the matter of Melanie Dorion, LNP. The motion was seconded by Ms. Buchwald and carried unanimously. A reconsideration decision letter that includes the reasons for the action will be forthcoming within 30 days from receipt of the petition for reconsideration.

The meeting was adjourned at 5:44 P.M.

Robin L. Hills

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Robin Hills, DNP, RN, WHNP
Deputy Executive Director for Advanced Practice

HPMP Quarterly Report
(January 1, 2023 - March 31, 2023)

Board	License	Admissions[1]		Stays[2]	Comp[3]	Vacated Stays[4]		Dismissals[5]				
		Req.	Vol.			Vac. Only	Vac. & Dism.	N/C	Inel.	Dism. Resig.	Resig.	Death
	`LNP	1			1			1			1	
	`LPN	4		1	1			2	2			
	`RN	10	1	3	8		1	11			1	
	`Massage Ther							1				
	`CNS											
Nursing Total		**15**	**1**	**4**	**10**		**1**	**15**	**2**		**2**	
	`CNA	1										
	`RMA											
CNA Total		**1**										
	`DC											
	`DO				2							
	`DPM		1									
	`Intern/Resident		1									
	`LAT											
	`LBA											
	`Lic Rad Tech											
	`MD	5	1		4						1	
	`OT				2							
	`PA		1		1			1				
	`RT	2										
	`LM											
	`OTA											
	`SA							1				
Medicine Total		**7**	**4**		**9**			**2**			**1**	
	`Pharmacist	1	1									
	`Pharm Tech											
	`Intern											
Pharmacy Total		**1**	**1**									
	`DDS				1							
	`DMD											
	`RDH	1									1	
Dentistry Total		**1**			**1**						**1**	
	`PT	1										
	`PTA	1										
Physical Therapy Total		**1**										
	`FSL							1				
	`FSP											
Funeral Directors and Embalmers Total								**1**				
TOTALS		**26**	**6**	**4**	**20**	**0**	**1**	**18**	**2**	**0**	**4**	**0**

Admissions[1]: Req=Required (Board Referred, Board Ordered, Investigation); Vol=Voluntary (No known DHP involvement at time of intake)

Stays[2]: Stays of Disciplinary Action Granted

Comp[3]: Successful Completions

Vacated Stays[4]: Vac Only=Vacated Stay Only; Vac &Dism=Vacated Stay &Dismissal

Dismissals[5]: N/C=Dismissed Non-Compliant; Inel=Dismissed Ineligible; Dism Resig=Dismissed due to Resignation; Resig=Resignation

KEY TAKEAWAYS FROM THE 2023 NCSBN VIRTUAL APRN ROUNDTABLE – April 11, 2023
Robin Hills, Deputy Executive Director for Advanced Practice

Objective

1. Assess the impact of COVID waivers on APRNs in direct patient care.
   - COVID-19 significantly reshaped APRN practice
   - Pandemic waivers did not have the impact they likely could have
   - Telehealth emerged and is here to stay
   - APRN discipline rates remained consistently low from 2019 to 2021
2. Evaluate the current trends in entry level APRN education – specifically the DNP.
   - Uncertainty remains concerning the skills and value of DNP graduates
   - No evidence was found of lower quality outcomes connected to online DNP programs
   - DNP graduates who work in administrative/executive/faculty roles perceive higher value from the DNP
3. Examine the role of nursing regulatory bodies in APRN discipline.
   - The commonalities of the discipline process for APRN cases across states was reviewed
4. Examine an alternative to discipline program for APRNs with substance use and opioid use disorders.
   - The profile of a health care provider with SUD is atypical – they tend to be very intelligent (tope 25% in their class), well-like and respected, serve in supervisory and managerial roles, have advanced degrees, and are top performers
   - Dopamine effect

Reading, Laughing Smelling Flowers	50ug
Hugging, Connections	100ug
Food	150ug
Sex/ Procreation	200ug
Tobacco	300ug
Alcohol	350ug
Cocaine	400ug
Opiates	450ug
Methamphetamines	1200ug

   - ATD Success rates
     10% - Detox alone
     60% – detox + monitoring
     85% at 1 year – detox + treatment + monitoring (95% at 5 yrs)

5. Identify opportunities for health care professionals to address the opioid crisis.

   National Academy of Medicine's Action Collaborative on Countering the US Opioid Epidemic
   NAM developed the 3 Cs Framework is a tool that can address practice gaps and serve as a catalyst for individualized and interprofessional education which will support the delivery of safe and high-quality care for a complex health problem
   - MAT Mainstreaming Addiction Treatment (MAT) Act -- eliminates the need for clinicians to apply for an X-waiver to prescribe buprenorphine.   It also eliminates patient caps restricting the number of patients a prescriber can treat with buprenorphine
   - MATE – Medication Access and Training Expansion (MATE) Act -- passed in December requires prescribers of controlled substances to complete a one-time, 8-hour training on treating and managing patients with SUD for their DEA license

6. Apply legislator insights to achieve stakeholder unity and advance APRN legislation.

   Representative Lauren Underwood, Illinois' 14th Congressional District & RN

   - Value of stakeholder unity – meeting prior to visiting a legislator to delete fissures so that a shared perspective can be presented. Coalition building is strength in numbers.

Claire Morris attended the NCSBN Mid-Year Meeting from March 29 to March 30, 2023 in Seattle, Washington.

The meeting was titled, Shine Through, Shaping a Brilliant Future.

Agenda topics included legislative updates; artificial intelligence in nursing; the future of telehealth to include international telehealth; the next generation NCLEX to include current security measures and artificial intelligence and virtual reality in nursing education. The key takeaway for me was nursing has changed and will continue to change regarding modernizing of practice, delivery of healthcare and education. The future will require modern AI/telehealth change for global society to keep pace with our populations' health care needs. Nurse regulators must be prepared to anticipate evolution of our regulations so that we can prevent potential pitfalls in order to keep the public safe.

Huong Vu's NCSBN Midyear Meeting Report

I want to thank Ms. Douglas and the Board for the opportunity of networking with many NCSBN staff and learning valuable issues at the NCSBN Midyear Meeting in Seattle, WA on March 29-30, 2022.

Topics of discussion included:
Update on Artificial Intelligence – this session gave an overview of the work NCSBN has done with artificial intelligence, exam proctoring and security.

Legislation Update – NCSBN Federal Affairs and State Affairs teams provided updates on the passed and pending federal legislation and administrative agency policy. 10 states currently have legislation introduced to join Nurse Licensure Compact. 7 states currently have pending legislation for APRN Compact.

NCSBN's Research on Telehealth – NCSBN provided insight into how telehealth companies currently coordinate care across international borders, and the regulatory requirements to which nurses working for these companies must follow for employment.

International Telehealth Guiding Principles – NCSBN shared the principles that were developed by regulators around the world regarding telehealth nurses.

Virtual Reality in Nursing Education – clinical professor at the University of Michigan provided and overview of virtual reality as it is used in nursing education.

I had the privilege of attending the NCSBN mid-year meeting in Seattle, Washington. The theme was Shine Through Shaping a Brilliant Future getting ready for the 45th year (Sapphire anniversary of NCSBN). It was exciting to see both the national and international levels, the direction of nursing, and how regulation is working and moving.

➢ The opportunity to network and discuss directly with NCSBN leadership Dr. Phil Dickinson, Dr. Brendan Martin, and the financial director helped me to realize what an amazing and awesome talent is available and guiding the nursing leadership at NCSBN. Nursing has developed into the NGN NCLEX a unique testing feature that requires critical thinking and clinical judgment.

➢ The CEO of NCSBN, Dr. David Benton, who is retiring in September, provided comments and questions to the presenters that helped me as an outsider, to see the depths of the work and expertise that those who came to the meeting had to share. He truly had the gift to connect the dots and bring home the key points the presenters were trying to deliver. Much research and information from an international Telehealth Think Tank have taken place so that in the future, nursing can become more international.

➢ It is exciting that nursing is implementing and designing cutting-edge technology using AI for NGN RN and PN test-takers for the near future. I particularly enjoyed Dr. Dickinson's talks on his progression on this task.

➢ In our area III meeting, we learned more ways to be involved in the NSCBN Passport. I have the APRN meetings on my calendar for June 8th and Aug 3rd, 2 PM Central time. These are available on the APRN Knowledge Network hive for members and staff of member boards who work directly with issues relating to advanced practice registered nursing. There is a Hive for education and other interests as well! Be sure you check out the NCSBN Hive!

➢ The topics of Telehealth and Virtual Reality in teaching were also very interesting. It is awesome to see how others are implementing this in their schools and workplaces.

➢ In our receptions and mealtimes, I had the opportunity to network with other members of BON staff and BON members. Hearing about how different states and boards function, the volume of cases they manage, etc. was very interesting.

I am very thankful for the opportunity and privilege to have had a chance to participate in this meeting. I would love to have the chance to attend again when possible! Thank you.

Helen Parke
DNP FNP-BC

Memo

To: Board Members

From: Jay P. Douglas, MSM, RN, CSAC, FRE

Date: May 23, 2023

Re: Dates for 2024 Board Meetings and Formal Hearings

The following dates are for the 2024 Board Meetings and Formal Hearings:

January 22 – 25, 2024

March 18 – 21, 2024

May 20 – 23, 2024

July 22 – 25, 2024

September 9 – 12, 2024

November 18 – 21, 2024

Board of Audiology & Speech - Language Pathology – Board of Counseling – Board of Dentistry – Board of Funeral Directors & Embalmers
Board of Long-Term Care Administrators – Board of Medicine - Board of Nursing – Board of Optometry – Board of Pharmacy
Board of Physical Therapy – Board of Psychology – Board of Social Work – Board of Veterinary Medicine - Board of Health Professions

Virginia Board of Nursing -- Informal Conference Schedule
July-December 2023
*Chairperson

Special Conference Committee A Cynthia Swineford, RN, MSN, CNE * Helen M. Parke, NP, DNP	**Special Conference Committee B** Felisa Smith, RN, MSA, MSN / Ed, CNE,PhD * Margaret Friedenberg, Citizen Member	**Special Conference Committee C** Tucker Gleason, PhD, Citizen Member* Laurie Buchwald, MSN, WHNP, FNP
Special Conference Committee D Meenakshi Shah, BA, RN* Dixie McElfresh, LPN	**Special Conference Committee E** Yvette Dorsey, DNP, RN * Paul Hogan, Citizen Member	**Special Conference Committee F** James Hermansen-Parker, MSN, RN, PCCN-K* Carol A. Cartte, RN

DATE			SCC / AG SUB	STAFF	CASES	MEETING ROOM	WAITING ROOM	BON STAFF	LMT ABM
Thursday	July 6	2023	AgSub-PS	RH	LNP/NSG	TR1	HR4	TC	
Tuesday	July 11	2023	AgSub TM	FI	NSG/RMA/CNA	TR1	HR5	LG	
Wednesday	July 12	2023	AgSub MG	CM	NSG/RMA/CNA	TR1	HR5	CS	
Thursday	July 13	2023	AgSub MG	RH	NSG/RMA/CNA	TR1	HR5	TR	
Monday	July 24	2023	AgSub KM	PD	NSG/RMA/CNA	TR1	HR5	LRC Staff	
Wednesday	July 26	2023	AgSub MG	CR	NSG/RMA/CNA	TR1	HR5	LG	
Thursday	July 27	2023	AgSub-LH	CR	NSG/RMA/CNA	TR1	HR5	CS	
Tuesday	August 1	2023	AgSub-TM	FI	NSG/RMA/CNA	TR1	HR5	TR	
Thursday	August 3	2023	AgSub MG	CR	NSG/RMA/CNA	BR3	HR5	LG	
Monday	August 7	2023	AgSub PS	RH	LNP/NSG	TR1	HR5	TC	
Wednesday	August 9	2023	AgSub-LH	CM	NSG/RMA/CNA	TR1	HR5	CS	
Thursday	August 10	2023	AgSub-LH	CR	NSG/RMA/CNA	TR1	HR5	TR	
Monday	August 14	2023	AgSub KM	PD	NSG/RMA/CNA	TR1	HR5	LRC Staff	
Tuesday	August 15	2023	SCC-A	CR	APPLICANT	TR1	HR5	TC	
Tuesday	August 22	2023	EDUC IFC	JW		BR4	HR5	BY	
Wednesday	August 23	2023	AgSub MG	RH	NSG/RMA/CNA	TR1	HR5	CS	
Thursday	August 31	2023	SCC C	CB	LMT	TR1	HR5	LRC Staff	
Wednesday	Sept 6	2023	AgSub PS	RH	LNP/NSG	TR1	HR3	TC	
Thursday	Sept 7	2023	AgSub-LH	CR	NSG/RMA/CNA	TR1	HR5	CS	
Monday	Sept 25	2023	AgSub KM	PD	NSG/RMA/CNA	TR1	HR5	LRC Staff	
Friday	Sept 29	2023	AgSub MG	CR	NSG/RMA/CNA	TR1	HR5	TR	
Tuesday	Oct 10	2023	AgSub TM	FI	NSG/RMA/CNA	HR5	HR6	LG	
Thursday	Oct 12	2023	AgSub MG	CR	NSG/RMA/CNA	TR1	HR5	CS	
Wednesday	Oct 18	2023	EDUC IFC			BR3	HR5	BY	
Monday	Oct 23	2023	AgSub PS	RH	LNP/NSG	TR1	HR5	TC	
Wednesday	Oct 25	2023	AgSub-LH	CR	NSG/RMA/CNA	TR2	HR5	TR	
Wednesday	Oct 25	2023	JB MTG	RH		BR2		TC	
Thursday	Oct 26	2023	AgSub-LH	CM	NSG/RMA/CNA	TR2	HR5	LG	
Thursday	Oct 26	2023	SCC C	CB	APPLICANT/LMT	TR1	HR5	LRC Staff	
Monday	Oct 30	2023	AgSub KM	PD	NSG/RMA/CNA	TR1	HR5	LRC Staff	
Monday	Nov 6	2023	AgSub PS	RH	LNP/NSG	TR1	HR5	TC	
Wednesday	Nov 8	2023	AgSub TM	FI	NSG/RMA/CNA	TR1	none	CS	
Thursday	Nov 9	2023	AgSub MG	CM	26NSG/RMA/CNA	BR1	HR5	TR	
Thursday	Nov 9	2023	AgSub-LH	CR	NSG/RMA/CNA	TR1	HR5	LG	
Monday	Nov 20	2023	AgSub KM	PD	NSG/RMA/CNA	TR1	HR5	LRC Staff	
Monday	Dec 4	2023	AgSub PS	RH	LNP/NSG	TR1	HR3	TC	
Monday	Dec 4	2023	EDUC IFC	JW		BR3	HR5	BY	
Tuesday	Dec 5	2023	AgSub TM	FI	NSG/RMA/CNA	TR1	HR5	CS	
Tuesday	Dec 5	2023	SCC-E	CM	NSG/RMA/CNA	TR2	HR6	TR	
Thursday	Dec 7	2023	AgSub-LH	CR	NSG/RMA/CNA	TR1	HR5	LG	
Monday	Dec 11	2023	AgSub KM	PD	NSG/RMA/CNA	TR1	HR5	LRC Staff	
Monday	Dec 11	2023	SCC D	CR	Applicant	BR3	HR6	TR	
Tuesday	Dec 12	2023	SCC A	CB	LMT	TR1	HR5	LRC Staff	
Wednesday	Dec 13	2023	AgSub MG	CR	NSG/RMA/CNA	TR1	HR2	LG	
Wednesday	Dec 13	2023	JB MTG	RH				TC	
Thursday	Dec 14	2023	SCC C	CM	NSG/RMA/CNA	HR5	HR3	CS	

BON AGENCY SUBs	TM – Trula Minton	KM - Kelly McDonough	PS-Pat Selig	LH-Louise Hershkowitz	MG-Marie Gerardo
BON STAFF	JD – Jay Douglas PD – Pat Dewey	RH – Robin Hills JW – Jacquelyn Wilmoth	CM – Claire Morris FI – Francesca Iyengar	CB-Christina Bargdill CR – Charlette Ridout
BON SUPPORT STAFF	LG – Lakisha Goode BY – Beth Yates	TC-Tamika Claiborne TR-Tamiera Redding	CS-Candis Stoll	HV – Huong Vu
APD STAFF	JB-Julia Bennett GS – Grace Stewart MP – Michael Parsons CA-Christine Andreoli L-Lisa Armstrong	CC – Christine Corey AJ-Anne Joseph RS-Rebecca Smith CM-Carolann McNicol MP-Melanie Pagano	DK – David Kazzie TJ – Tammie Jones CF-Claire Foley SP-Scott Pearl	RR-Rebecca Ribley LP=Lori Pound
OTHERS – MT Adv Bd	DH – Dawn Hogue	EO- Erin Osiol	SP- Shawnte Peterson	MO-Maria Olivieri

Updated: May 2, 2023

International Guiding Principles for Telehealth Nursing

1. Telehealth nurses must be registered/licensed in the jurisdiction(s) where they will provide care for patients (any compact/mutual agreements among jurisdictions will continue to be recognized).

2. In addition to fulfilling the jurisdictional education requirements, telehealth nurses must have specific competencies for telehealth nursing. This includes knowledge of the language and cultural norms of the jurisdiction(s) where they are caring for patients.

3. Telehealth nurses must abide by the laws/regulations of the jurisdiction where the patients they care for are located (including privacy/confidentiality laws).

4. Telehealth nurses must abide by the scope of practice requirements of the jurisdiction in which they are registered or licensed.

5. Telehealth nurses who wish to prescribe medications/treatments, must have prescriptive authority in the country in which the patient is located.

6. Complaints about a nurse providing telehealth care should be sent to both the regulatory body in the jurisdiction where the incident occurred and the regulatory body in the jurisdiction where the nurse is registered/licensed.

7. Employers are responsible for all nurses caring for patients and ensuring all jurisdictional requirements for telehealth nursing are met. Employers are also responsible for reporting incidents involving a telehealth nurse to the appropriate regulatory body.

8. Regulators should use these principles to educate the public in their jurisdiction.

9. An international registry of telehealth nurses should be established.

10. Telehealth companies should have to sign an international agreement that they will abide by the guiding principles and/or the laws and regulations of the jurisdictions in which their nurses are providing telehealth services.

Assessing the Impact of the COVID-19 Pandemic on Nursing Education: A National Study of Prelicensure RN Programs

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CONTENTS

Advancing nursing excellence for public protection

Assessing the Impact of the COVID-19 Pandemic on Nursing Education: A National Study of Prelicensure RN Programs

Background: The COVID-19 pandemic has had a profound impact on prelicensure nursing education, leading to widespread disruptions that may have implications for nursing students' learning and engagement outcomes. Understanding how the rapid shift to online and simulation-based teaching methods has affected new graduates' clinical preparedness is critical to ensure patient safety moving forward. **Purpose**: To assess the impact of institutional, academic, and demographic characteristics on prelicensure nursing students' academic, initial postgraduation, and early career outcomes during the COVID-19 pandemic. **Methods:** We conducted a mixed-methods longitudinal study focused on prelicensure registered nurse (RN) students entering the core of their didactic and clinical nursing coursework during the pandemic. This study uses a combination of real-time student and faculty self-report data, including externally validated instruments, within and end-of-program standardized test scores, and focus group findings. Various statistical methods, ranging from simpler descriptive and non-parametric methods to Generalized Estimating Equation (GEE) models and detailed textual analysis, are applied to assess student, faculty, and institution-level data. **Results:** The final sample includes more than 1,100 student and faculty participants affiliated with 51 prelicensure RN programs located across 27 states. Leveraging more than 4,000 course observations collected from fall 2020 to spring 2022 and supplemented by the rich personal narratives of over 60 focus group participants, this study illuminates the breadth, scale, and ever-evolving nature of prelicensure RN programs' efforts to maintain the continuity of nursing students' education during the public health crisis. In doing so, it captures the many ways in which nursing administrators, faculty, and students sought to address the unparalleled challenges they confronted on a day-to-day basis. In particular, the findings provide critical insights into the efficacy of the changes nursing programs made to their course delivery formats to adjust to the confluence of rapidly evolving federal, state, and private restrictions to stem the spread of COVID-19. **Conclusion:** This study stands as the most comprehensive assessment of prelicensure nursing education in the United States since the onset of COVID-19. It extends knowledge by linking potential deficiencies in students' didactic and clinical education during the pandemic and their early career preparedness, clinical competence, and the patient safety implications therein.

Keywords: Prelicensure RN nursing education, COVID-19 pandemic, simulation-based experiences, remote learning, student learning and engagement, student and faculty self-reports, patient safety

The onset of COVID-19 in the United States affected nearly every aspect of the nursing profession over the past 3 years, from an increased reliance on simulation for undergraduate clinical education to expanded scope of practice for advanced practice registered nurses (Stucky, Brown, & Stucky, 2021; Martin, Buck, & Zhong, 2023). As we now enter a post-crisis phase of the pandemic, it is incumbent on researchers to identify and differentiate between the possible short- and long-term consequences of the disruptions introduced by the confluence of rapidly evolving federal, state, and private restrictions that were enacted to combat the rising tide of infection across the country. Perhaps nowhere is this more important than in prelicensure registered nurse (RN) education, which has experienced unprecedented levels of change since March 2020, both in terms of the scale and speed of the adoption of more remote models of clinical education. To inform future policy decisions, it is essential that we learn from this public health crisis. The empirical evidence from this timeframe can provide important insights into the creation of more resilient educational models and health systems now and in the event of another emergency.

Since the early 2000s, the rapid expansion of prelicensure RN programs across the United States has made securing in-person clinical placements and qualified preceptors more difficult (Hayden, 2010). To address these shortfalls, many programs have opted to substitute a proportion of their traditional in-person clinical placements for simulation-based experiences (SBE). In the past decade, nursing students using face-to-face SBEs under specific conditions have demonstrated learning outcomes comparable to those of students participating in traditional in-person clinical placements (Hayden et al., 2014). Furthermore, SBE students have even achieved better marks in specific knowledge areas than their traditional learner counterparts (Maruca et al., 2018; Waxman, 2019; Sullivan et

al., 2019). Many of these studies, however, were based on the assumption that certain quality control measures would be standardized, such as the use of experienced faculty to conduct face-to-face simulation at certain preset thresholds and within the context of a minimum number of prescribed clinical hours. Despite the increased use of SBE and the research associated with it, the quality of prelicensure RN students' educational experiences through integration of SBE has still been questioned.

The National Council of State Boards of Nursing (NCSBN) recognized the destabilizing potential of the pandemic and thus set out in April 2020 to design a study to longitudinally track and analyze the learning and engagement outcomes of prelicensure RN students under significantly less controlled conditions. Out of necessity, and often in response to clinical site restrictions prohibiting nursing students from entering facilities, education programs were forced to quickly pivot their course delivery methods, often with no additional training or resource support. Prelicensure programs that never relied on any form of SBE were now shifting 25% to 50% of their in-person clinical hours to simulation-based learning environments. Additionally, programs that had long employed face-to-face simulation were now exploring new modes of virtual simulation. Layered on top of this shifting landscape was the patchwork of public health guidance and restrictions that frequently varied significantly in terms of scope and duration by region, including at the state and local community levels. Through a combination of real-time student and faculty data collection using externally validated instruments and end-of-program standardized test scores, the NCSBN endeavored to identify the range of programmatic changes across the country and, the implications of these changes for new graduates' early career practice and ultimately patient safety.

This important longitudinal study captures both the breadth and scale of prelicensure RN programs' early and sustained changes to their course delivery formats to ensure some level of continuity in students' education during the COVID-19 pandemic. As a natural experiment, this study benefits from these programs' evolving responses to the pandemic within their local contexts and documents the range of strategies employed. Thus, the results serve as a marketplace of ideas in a manner that allowed NCSBN researchers an opportunity to identify organic trends that emerged from the empirical evidence itself and thereby derive insight based singularly on the outcomes achieved by the programs and students who participated. While not the first of its kind, the scope and rigorous design of this study illuminate the many innovative ways prelicensure RN programs sought to address the nearly unparalleled challenges they confronted on a day-to-day basis over the past 3 years. Furthermore, it provides the mechanisms for measuring the efficacy of these strategies. Most importantly, it extends knowledge to establish clear links with how potential deficiencies in students' clinical education impacted their early career preparedness and clinical competence and the implications of any potential deficiencies for patient safety.

It has long been speculated and even anecdotally documented that the disruptions to traditional models of teaching and clinical training wrought by COVID-19 inevitably affected students' learning and engagement outcomes. To better understand how they were affected and to quantify to what extent the pandemic impacted prelicensure nursing students' career preparedness, NCSBN conducted a large sample mixed-methods longitudinal study. The present report provides critical insights into four important areas:

1. It links student outcomes and instructional delivery format
2. It quantifies the scale of programs' early efforts to transition to SBE and online lecture content and correlates it to standardized examination results
3. It captures new graduates' experiences as early career professionals
4. It relays aspects of prelicensure students', faculty members', and administrators' lived experiences throughout the pandemic.

Taking the critical insights from these four areas together, this study not only serves as one of the most comprehensive assessments of these topics to date but also paints a detailed picture of the impact of the COVID-19 pandemic on prelicensure nursing education. In doing so, it helps identify the early and sustained successes of programs' efforts to confront the public health crisis, as well as the areas in need of improvement to ensure more resilient frameworks are in place should another crisis emerge.

Literature Review

Increased patient volume and acuity (Office of the Assistant Secretary for Planning and Evaluation, 2022), coupled with shortages in personal protective equipment in early 2020, resulted in many prelicensure nursing students being restricted from accessing clinical sites (American Association of Colleges of Nursing [AACN], 2020). While well intentioned and borne out of necessity, the effects that these policies had on nursing education programs cannot be overstated. Prelicensure RN programs were forced to quickly pivot their teaching strategies to online course delivery formats for lecture content (Goldberg, 2020) and simulation or virtual simulation for teaching patient care (Benner, 2020; Dewart et al., 2020; Innovations in Nursing Education, 2020; Kaminski-Ozturk & Martin, 2023; Martin et al., 2023). Seymour-Walsh et al. (2020) noted that this shift was particularly jarring for health profession educators, as most programs were traditionally administered in-person; thus, faculty and administrators were forced to rapidly develop online and simulated curricula, frequently in a manner entirely inconsistent with their own academic training (Booth et al., 2016).

Existing evidence suggests that employers were already generally uneasy with the quality of new nurse graduates' clinical preparation and preferred to hire more experienced frontline staff (Budden, 2011). With this trend in mind and confronted by the reality of the public health crisis, NCSBN recommended a national practice–academic partnership model in 2020. The goals of the recom-

mended partnership were twofold: (1) to provide nursing students with meaningful in-person clinical experiences during the pandemic and (2) to offer employers a means to alleviate staffing shortages at least temporarily (NCSBN, 2021; Spector et al., 2021). While these partnerships are not new (AACN, n.d.), during the pandemic they proved to be invaluable to nursing programs (Spector et al., 2020). In applying this approach, many programs strengthened ongoing or developed new collaborative opportunities with employers. Harper et al. (2022) described how faculty and students at the University of Alabama at Birmingham School of Nursing provided more than 10,000 hours of hospital staffing, more than 770 worked shifts—equivalent to 30% of the supplemental staffing during surge events—and approximately 46,000 vaccine encounters. Such partnerships, though likely underutilized (Martin & Kaminski-Ozturk, 2023), provided critical opportunities to support and improve the clinical education of prelicensure students at a time of need. They also likely mitigated, to some extent at least, the need for extra mentoring and continuing education for recent graduates to address perceived deficiencies, further bolstering an already depleted workforce (Smith et al., 2021; Michel et al., 2021; Crismon et al., 2021).

During this turbulent period, U.S. boards of nursing (BONs) played an essential role in supporting prelicensure nursing programs, including issuing emergency guidance on permissible SBE usage (Chan et al., 2021; Kaminski-Ozturk & Martin, 2023). Specifically, many BONs adjusted thresholds on the use of SBE to replace traditional in-person clinical experiences—either by relaxing regulations regarding the proportion of clinical hours that could be substituted with SBE or by temporarily waiving regulations entirely—to allow programs to seek accommodations that best fit their needs and local contexts (Bradley et al., 2019; NCSBN, 2020). While nearly all prelicensure RN education programs adapted their curricula in some manner in response to clinical site restrictions, shifts to increased SBEs were most pronounced in jurisdictions that adjusted their regulations (Kaminski-Ozturk & Martin, 2023).

Similar to practice-academic partnerships, the use of simulation in prelicensure nursing education is not a new phenomenon (Barwick, 2019; Morse et al., 2019). Over the past 2 decades, simulation has become a critical component of nursing education, largely spurred on by increased competition for clinical placements driven by the rapid proliferation of prelicensure RN programs that began in the early 2000s (Hayden, 2010). SBEs allow students to hone their skills, both in terms of frequent and rare events, in spaces that simulate clinical practice environments (Lavoie & Clarke, 2017). SBEs often involve the use of high-fidelity manikins, or virtual environments (Bryant et al., 2020). In 2014, Hayden et al.'s seminal study and the associated guidelines that followed (Alexander et al., 2015) established the first evidence-based criteria to assist regulatory bodies in evaluating institutions employing simulation-based clinical experiences and to support prelicensure nursing programs in establishing their own curricula. The use and thereby regulation of simulation in nursing education has only increased since the publication of this landmark report (Smiley, 2019; Smiley & Martin, in press). In addition to Hayden et al.'s (2014) important work to set evidence-based thresholds for SBE substitution, other studies have documented the strengths of using SBE to introduce concepts of cultural competence (Maruca et al., 2018), high-stakes learner evaluation (Waxman et al., 2019), and critical thinking (Sullivan et al., 2019). As a result, long before the pandemic, SBEs had become an attractive alternative to nursing administrators and faculty when in-person clinical placements proved too difficult to arrange, largely due to limited space and/or a limited number of qualified nurse preceptors (Taylor et al., 2017; Hayden et al., 2014).

In parallel to the growth of SBE, virtual clinical simulation has experienced a less pronounced but similar trajectory. As early as 2018, Aebersold described virtual clinical simulations as a "small but growing part of [prelicensure undergraduate] simulation experiences." The term *virtual simulation* is often used to describe a variety of interchangeable learning modalities, including three-dimensional learning environments (Hansen, 2008), virtual or augmented reality (Kardong-Edgren et al., 2019), game-based learning, and screen-based learning (Foronda, 2021). Virtual simulation also continues to evolve with extended reality, which includes multiple modalities (augmented, virtual, and mixed realities). During the early stages of the COVID-19 pandemic, when programs were confronted with significant and unprecedented restrictions to traditional in-person clinicals, the relatively low cost, general availability, and range of virtual options appealed to nursing educators who had up to that point relied on more traditional teaching methods (Morin, 2020; Kaminski-Ozturk & Martin, 2023; Jeffries et al., 2022). However, the adoption of virtual clinical simulation in nursing education has not been without growing pains. While preliminary research has found that virtual clinical simulations yield comparable results relative to manikin-based simulation in terms of students' perceptions of learning (Padilha et al., 2019; Foronda et al., 2020; Fogg et al., 2020; Badowski et al., 2021), scholars have consistently lamented the unstandardized approach to virtual simulation (Kardong-Edgren et al., 2019; Luctkar-Flude & Tyerman, 2021; Jeffries et al., 2022).

Despite recent efforts to delineate between virtual simulation through a screen-based learning environment and virtual reality simulation, which allows for a 360-degree immersion (Foronda, 2021), concerns emerged during the pandemic regarding programs' misuse of established technologies as well as their lack of evidence-based educational approaches. For instance, some nursing programs exceeded NCSBN's recommended guidelines, both in terms of maximum substitution thresholds and use of high-fidelity SBE (Alexander et al., 2015), while others employed unproven virtual modalities for traditional clinical hours and strayed from even the few foundational elements underpinning virtual simulation (Dolan et al., 2021). Nonetheless, as the pandemic recedes and enters a new post-crisis phase, virtual clinical simulation, which requires fewer resources, such as space, faculty, and time relative to more established in-person clinical placements and high-fidelity SBE, appears to be, at least to some degree, an established component of the

nursing educational landscape (Brown et al., 2021). In fact, given its distinct cost advantage alone (Haerling, 2018), broader adoption of virtual simulation may be inevitable.

Given the systemic shock presented by the pandemic and the range of strategies employed by nursing education programs to counter it, it is unsurprising that emerging evidence on student outcomes has been mixed. Despite many challenges (Michel et al., 2021; Smith et al., 2021), some research has indicated that prelicensure nursing students' learning outcomes were maintained (Konrad, Fitzgerald, & Deckers, 2021). By contrast, Crismon et al. (2021) documented new nurse graduates' frustration over the apparent mismatch between their clinical experiences and their role as nurses entering the profession during a global health crisis. Two other studies similarly noted that nurses' perceived level of preparedness and their transition to the professional nursing role were adversely affected by the reduction in clinical time and transition to online learning (Bultas & L'Ecuyer, 2022; Lanahan et al., 2022). Even more alarming, since the end of 2019, first-time NCLEX-RN pass rates for U.S.-educated graduates have steadily declined by 7%–8% (NCSBN, 2022). While preliminary, these disparate findings suggest a need for not only further insight into the impact of the pandemic on nursing education, but they also necessitate future studies assessing possible links to adverse patient outcomes (Lanahan et al., 2022).

Methods

Study Design

The present cross-sectional study utilized a four-phase longitudinal design to assess academic and initial postgraduation outcomes for nursing students in the spring 2022 cohort. A brief summary of each phase is presented in this section, and additional details are reported in subsequent sections by phase.

Phase One started data collection with a brief initial outreach survey (Appendix A1) to administrators at active prelicensure RN (associate degree in nursing [ADN] or bachelor of science in nursing [BSN]) programs in the United States in July 2020. In total, NCSBN researchers identified a valid email contact for 1,604 unique program administrators. To ensure an accurate accounting, only one representative from each institution was permitted to respond and multiple survey submissions were restricted. As part of this outreach, NCSBN contacted program deans, directors, and chairs via email and asked them to report the proportion of simulation use, both high-fidelity and virtual, in the fall 2019 term and to project thresholds for the fall 2020 term via a Qualtrics (Provo, UT) survey. The instrument also included a question to gauge respondents' interest in participating in NCSBN's planned longitudinal survey, which at the time was set to launch in August 2020. Though all questions were voluntary, more than three-quarters ($n = 410$, 77.9%) of respondents said they were interested. All ADN and BSN programs that expressed interest in the study and otherwise met eligibility criteria were contacted for possible participation.

The initial outreach survey results from Phase One indicated that most programs adopted online didactic coursework to a much greater extent than simulated or virtually simulated clinical experiences in response to the COVID-19 pandemic. Thus, NCSBN stratified its study recruitment to reflect this reality (Figure 1). To this end, programs were initially categorized into one of three groups:

1. Low Didactic Online: Programs that reported minimal shifts to online didactic coursework, defined as ≤25th percentile of observed change based on baseline survey results.
2. Medium Didactic Online: Programs that reported low to moderate shifts to online didactic coursework, defined as >25th percentile but <75th percentile of observed change based on baseline survey results.
3. High Didactic Online: Programs that reported significant shifts to online didactic coursework, defined as ≥75th percentile of observed change based on baseline survey results.

Within each of these groups, programs were then further stratified based on the proportion of their planned shifts to simulated or virtually simulated clinical experiences.

1. Low Simulation/Virtual Simulation Change: Programs that reported minimal shifts to simulation/virtual simulation, defined as ≤25th percentile of observed change based on baseline survey results.
2. Medium Simulation/Virtual Simulation Change: Programs that reported low to moderate shifts to simulation/virtual simulation use, defined as >25th percentile but <75th percentile of observed change based on baseline survey results.
3. High Simulation/Virtual Simulation Change: Programs that reported significant shifts to simulation/virtual simulation, defined as ≥75th percentile of observed change based on baseline survey results.

FIGURE 1

Planned Study Design

Low Didactic Online Δ			Medium Didactic Online Δ			High Didactic Online Δ		
Low Sim Δ	Med Sim Δ	High Sim Δ	Low Sim Δ	Med Sim Δ	High Sim Δ	Low Sim Δ	Med Sim Δ	High Sim Δ
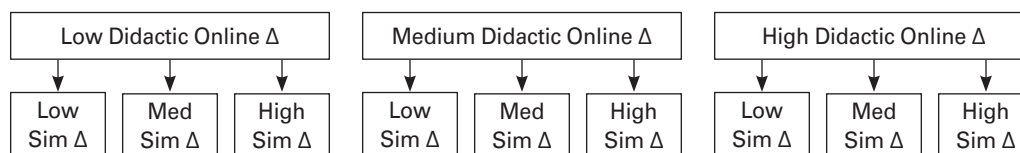
Note. Sim = simulation; Δ = Delta/Change.

Phase Two of the study began in fall 2020 and was separated into two parts: students and faculty. The student cohort selected for participation comprised undergraduates entering the core of their didactic and clinical nursing coursework during the COVID-19 pandemic. General inclusion criteria were students enrolled in prelicensure RN (ADN or BSN) programs for fall 2020 at a participating study site with graduation anticipated in spring 2022. Exclusion criteria included accelerated BSN students, degree completion students (RN to BSN students), any student who already held a nursing license (licensed practical nurse/licensed vocational nurse [LPN/LVN] or RN), students enrolled in exclusively online programs, and students in any programs without full approval from its state's BON. All eligible students were invited to participate, and consent was obtained at the launch of the study.

Program and student characteristics determined the overall profile of the study sample. Thus, the faculty inclusion and exclusion criteria mirrored the undergraduate sample parameters by default. Any didactic or clinical faculty teaching eligible students at a participating study were invited to participate. Unlike students who were only consented once at the start of the study, faculty participants were recruited on a rolling basis at the start of each academic term. This approach allowed NCSBN researchers to capture the often dynamic (e.g., due to turnover) faculty workforce at participating sites. After the fall 2020 term, all returning faculty were able to skip the consent process and proceed directly to the pre-course survey questionnaire, while new faculty participants were provided background on the study and asked to consent.

To facilitate student and faculty recruitment, NCSBN asked each participating nursing program to designate an administrator or faculty who would serve as site research coordinator for the duration of the study. Informational and training sessions were then scheduled with these individuals prior to the study launch to provide an overview of eligibility criteria. Participation criteria were hierarchical, so site research coordinators were asked to limit student outreach to undergraduates with an anticipated graduation in spring 2022. All students in this cohort were invited to participate via email and in-person communications by the nursing program deans and then in follow-up correspondence by the site research coordinators at study launch. Faculty recruitment was equally targeted, but more fluid. Only faculty teaching eligible students were invited to participate via both email and in-person communications from their program deans and site research coordinators. As this cohort shifted term-to-term throughout the data collection period, faculty were recruited in coordination with the site research coordinator at the start of each academic term from fall 2020 to spring 2022. Once students and faculty consented to participate, NCSBN researchers had access to self-reported contact information, including names and emails.

Phase Three of the study commenced at the conclusion of each student's academic program, at which point exit information including alternate contact information and core measures of each student's academic performance, such as their course-level standardized examination scores (e.g., Assessment Technology Institute [ATI], Health Education Systems, Inc. [HESI], and Kaplan), were collected. Then, at intervals of 3 and 6 months, new graduates were asked to provide details on their postgraduation experiences. For new graduates who were employed at one or more of these intervals, NCSBN research staff provided an anonymous link to forward to their manager or a direct supervisor familiar with their work to provide an additional evaluation. Each new graduate's manager was then provided with a formal letter regarding the purpose of the study, the expected time commitment, and safeguards to ensure data security and integrity. Participation incentives were offered at each interval to both new graduates ($75) and their managers ($50) per successful survey completion. Unfortunately, while new graduate participation was robust, managerial feedback was very limited and thus not included in the final analysis. NCLEX-RN test results were verified within 6 months of graduation.

For the fourth and final phase of the research, NCSBN engaged a qualitative research consultant to conduct targeted focus groups at the conclusion of the 2-year study window (June–September 2022). Participation in the qualitative component of this mixed-methods study was treated separately from the initial consent process. In other words, program administrators, faculty, and students enrolled in the quantitative portion of our study were once again recruited and consented to participate in the qualitative follow-up. The NCSBN research team was responsible for recruiting the program personnel, but the qualitative researcher facilitated all focus groups and completed the qualitative analysis of the de-identified results.

Human Subjects Protection

To protect the rights of study participants, a full research protocol was submitted to Western Institutional Review Board (WIRB) for review, which determined the study to be exempt under 45 CFR § 46.104(d)(1). Prior to beginning data collection, informed consent was documented for all participants.

Phase One: Descriptive Summary of Study Sample

Phase One of this national study provides a descriptive summary of the initial outreach survey institutional participants and the final institutional participant sample for the longitudinal study. This information was compiled from the results of the survey to administrators at active prelicensure RN programs in the United States in July 2020. All information was then supplemented through a secondary review of publicly available data reported by the institution, the program, and the U.S. Department of Education.

Methods

In April 2020, NCSBN designed an initial outreach survey (Appendix A1) to prelicensure RN programs that consisted of eight core items, including types of degrees offered, use of standardized examinations to measure student progression, and several items comparing program enrollment, face-to-face and virtual simulation use, and online lecture content for fall 2019 and fall 2020. Prior to final dissemination, the instrument was reviewed for face validity through coordination with experienced nurse regulators and educators. The survey was initially administered using Qualtrics (Provo, UT) in mid-July 2020 and remained available for 2 weeks with three regularly scheduled reminders per week. Responses collected via this survey were also used to determine eligibility for Phase Two of the study.

Site research coordinators at selected programs were than asked to complete a Study Induction Survey (Appendix A) prior to kick-off. This instrument primarily solicited more detailed information on the student and faculty compositions of the nursing program. These results augmented data collected via the baseline survey. Missing information and additional characteristics were then supplemented via secondary searches using the Integrated Postsecondary Education Data System (IPEDS), administered by the U.S. Department of Education, and each program's public-facing website and marketing materials.

Data Analysis

Data are reported as frequencies and proportions for all categorical variables, while continuous variables are expressed as means and standard deviations or medians and interquartile ranges (IQRs), as appropriate. Generalized estimating equation (GEE) models were used to assess the significance of observed trends. All analyses were conducted using SAS version 9.4 (Cary, NC), and $p \leq .05$ was established as a benchmark for statistical significance.

Results

Initial Outreach Survey

A total of 526 programs responded for a final response rate of 32.8%. According to the survey results from July 2020, median enrollment held steady year over year (Table 1). In fall 2019, respondents ($n = 499$) indicated a median enrollment of 120 (IQR: 60–225) students. In fall 2020, respondents ($n = 499$) anticipated similar numbers (Mdn: 124.5, IQR: 60–236). Not surprisingly, the use of face-to-face simulation to replace traditional clinical placements doubled during the pandemic. From fall 2019 to fall 2020, among 490 respondents, the median number of clinical hours completed in simulation grew from 15% (IQR: 9%–25%) to 30% (IQR: 20%–50%, $p < .001$). Nonetheless, few prelicensure RN programs ($n = 74$) expected to exceed the 50% simulation replacement threshold during the fall 2020 term.

TABLE 1

Comparison of Baseline Prelicensure RN Program Information: Fall 2019 vs. Fall 2020

Program Information	Fall 2019		Fall 2020	
	N	*Mdn (IQR)*	*N*	*Mdn (IQR)*
Student enrollment	499	120 (60–225)	498	124.5 (60–236)
Face-to-face simulation use	490	15% (0%–25%)	490	30% (20%–50%)
Virtual simulation use	419	5% (0%–10%)	419	25% (15%–50%)
Lecture hours online	478	2% (0%–10%)	478	62% (30%–100%)

A majority of programs also indicated they planned to incorporate virtual simulation instruction into their curriculum during the fall 2020 term ($n = 421$, 85.9%). The number of programs that offered no virtual simulation hours decreased substantially from fall 2019 ($n = 130$) to fall 2020 ($n = 11$, $p < .001$). Year-to-year, the median number of clinical hours completed in virtual simulation grew at an even faster pace than face-to-face simulation use, from 5% ($n = 419$, IQR: 0%–10%) to 25% ($n = 419$, IQR: 15%–50%, $p < .001$).

The proportion of lecture hours completed online presented the sharpest shift. From fall 2019 to fall 2020, the median number of lecture hours completed online grew from just 2% ($n = 478$, IQR: 0%–10%) to 62% ($n = 48$, IQR: 30%–100%, $p < .001$). Strikingly, the number of programs that offered no online lecture hours decreased from 167 in fall 2019 to 21 in fall 2020 ($p < .001$). By contrast, the number of programs that offered all their lecture hours online increased from 10 in fall 2019 to 153 in fall 2020 ($p < .001$).

Inclusion for Longitudinal Study

More than three-quarters ($n = 410$, 77.9%) of programs indicated their interest in participating in the longitudinal survey, which at the time was slated to launch in August 2020. All ADN and BSN programs that expressed interest in the study and otherwise met eligibility criteria were contacted for possible participation (Figure 2). Specifically, programs that only offered an accelerated BSN or online option, or uniquely enrolled degree completion students (RN to BSN students) or students who already held a nursing license (licensed practical nurse/licensed vocational nurse [LPN/LVN] or RN) were excluded from further outreach. In addition, if a program did not have full approval from its state's BON at the time of study launch, it was similarly excluded.

FIGURE 2

Study Flow From the Baseline Survey to Longitudinal Study
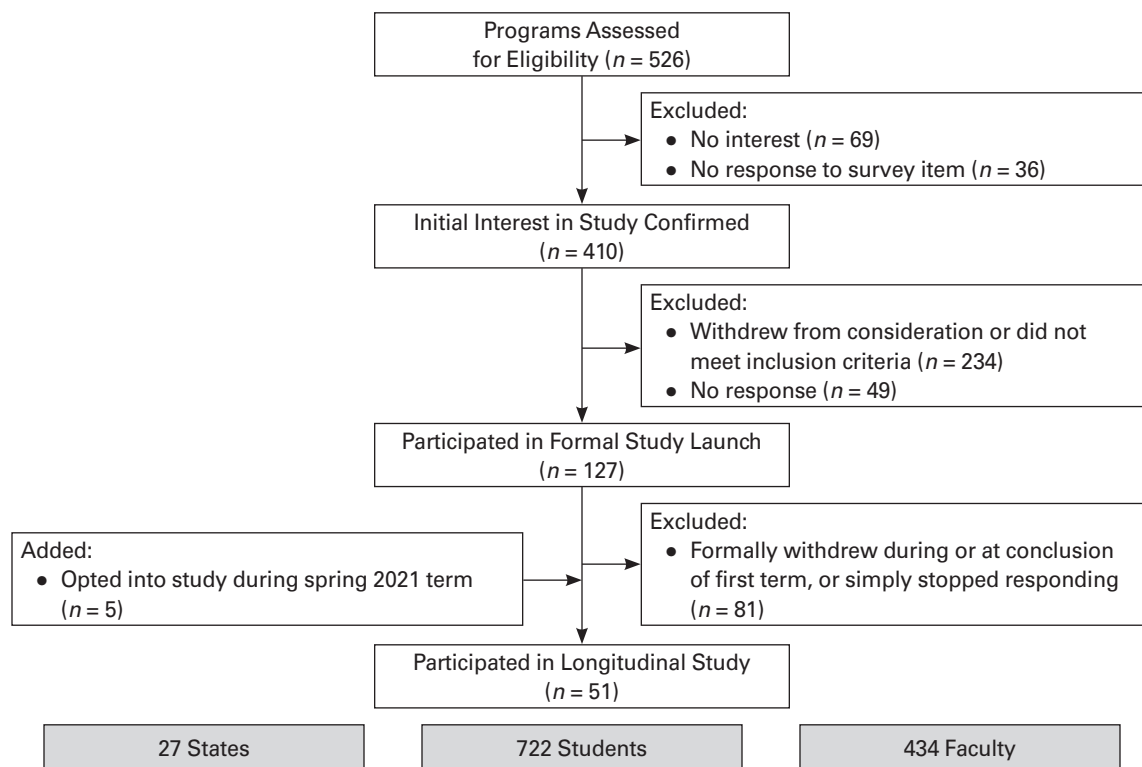
Institutional Sample

In total, 51 prelicensure RN programs participated in the longitudinal study. These programs represented 27 U.S. states and comprised more than 700 student and more than 400 faculty participants. There was a near even split between BSN ($n = 28$, 54.9%) and ADN ($n = 23$, 45.1%) programs (Table 2). A plurality were located in urban areas ($n = 23$, 45.1%), but sizable proportions of the participating programs indicated suburban ($n = 16$, 31.4%) and rural ($n = 10$, 19.6%) as well. A majority of the sample programs were from public institutions ($n = 35$, 68.6%) on a semester-based academic schedule ($n = 44$, 86.3%). Most programs were well established, with a median of 54 (IQR: 34–68) years in operation. Combining out-of-state tuition rates for public institutions with private expenses, the median annual tuition reported was $20,169 (IQR: $10,446–$31,574).

TABLE 2

Summary of Programs Participating in the Longitudinal Study (*N* = 51)

Institutional Characteristics	*n* (%)[a]	Institutional Characteristics	*n* (%)[a]
Program Type		Trimesters	3 (5.9%)
BSN	28 (54.9%)	Quarters	2 (3.9%)
ADN	23 (45.1%)	Other	2 (3.9%)
Region		Years in Operation	54 (34–68)
Urban	23 (45.1%)	Full-time Faculty	13 (9–26)
Suburban	16 (31.4%)	Adjunct Clinical Faculty	17 (5–33)
Rural	10 (19.6%)	Required Clinical Hours	681 (584–750)
Other	2 (3.9%)	Student-to-Faculty Ratio	8 (8–9)
Funding Profile		Student Enrollment	52 (30–98)
Public	35 (68.6%)	Hispanic Students	9% (2.0%–20.0%)
Private, not-for-profit	14 (27.5%)	White Students	63% (50.0%–82.0%)
Private, for-profit	2 (3.9%)	Female Students	88% (80.0%–82.0%)
Academic Schedule		First-timetime NCLEX Pass Rate[b]	85.0%
Semesters	44 (86.3%)	Overall NCLEX Pass Rate[b]	91.0%

Note. ADN = associate degree in nursing; BSN = bachelor of science in nursing.
[a] Continuous variables are presented as median (interquartile range).
[b] For students with an NCLEX administration date between March and December 2022 (predominantly spring 2022 cohort).

Participating prelicensure RN programs also reported a median of 13 full-time faculty (*IQR*: 9–26) and 17 adjunct clinical faculty (*IQR*: 5–33). The median student-to-faculty ratio was consistent across the programs (*Mdn*: 8, *IQR*: 8–9). Similarly, the number of required clinical hours was fairly bounded (*Mdn*: 681, *IQR*: 584–750). Median prelicensure nursing student enrollment was 52 (*IQR*: 30–98). The overall student demographics at participating programs suggested a fairly diverse student population with a median of 9% Hispanic (*IQR*: 2%–20%), 63% White (*IQR*: 50%–82%), and 88% female (*IQR*: 80%–92%). The mean age of students at participating sites was 25 (*SD*: 6.7) years. The first-time NCLEX-RN pass rate among all students with at least one test administration date between March and December 2022 (e.g., predominantly the spring 2022 cohort) at participating sites was 85.0%. The overall NCLEX-RN pass rate at participating sites during the same period was 91.0%.

FIGURE 3

Geographic Location of Programs Participating in the Longitudinal Study
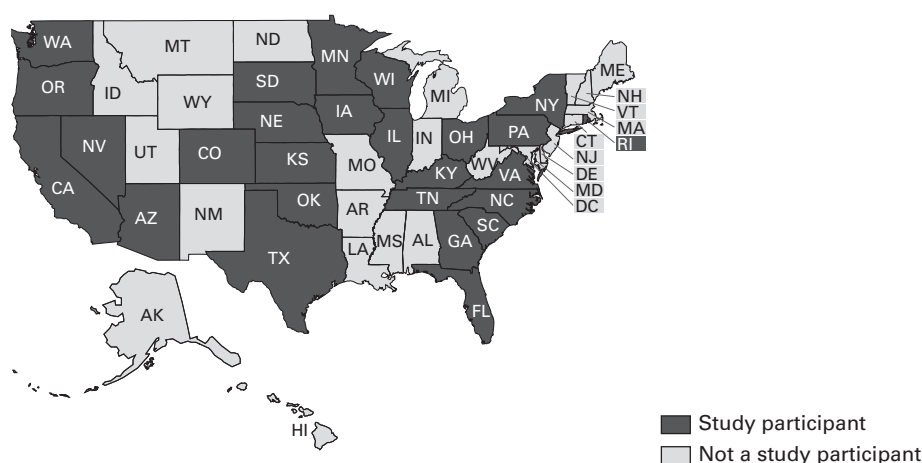
Limitations

This was a voluntary opt-in research study. As such, efforts were made to secure as large and geographically and demographically diverse a sample as possible. However, due to the personal, professional, and institutional strains brought about by COVID-19, many programs opted to drop from participation during the first term of within-program data collection. Similarly, at the institution level,

the students and faculty who opted to participate may not provide an entirely representative snapshot of the engagement and learning levels at the participating prelicensure RN programs. Existing literature and the results of this study confirm that the lived experience of the COVID-19 pandemic is not universal, but rather an individualized experience dependent on the personal, academic, and professional stressors it introduces. Further, a detailed breakdown by student race is not available due to incomplete institutional responses provided by site research coordinators. Finally, the aggregate NCLEX-RN results included in this analysis suggest the included programs outperformed national results over the same period. Thus, the estimates and outcomes reported in this document may underreport the true effect of the observed trends.

Conclusion

The 51 prelicensure RN programs that participated in the longitudinal study ranged from smaller private not-for-profit institutions with fewer than 20 nursing students to large flagship public institutions with nursing program enrollments in the hundreds. The summary results underscored the geographic, programmatic, and demographic diversity of our retained sample. Participating prelicensure RN programs hailed from 27 states. There was a near even distribution by region, with nearly half of the programs located in urban areas (n = 23) and the remaining half in suburban/rural (n = 26) locales. Most of the programs were in public institutions (n = 35), and most offered a BSN degree (n = 28). The racial (63% White) and ethnic (9% Hispanic) diversity of the nursing student populations in participating programs was strong. As is typical of the broader nursing profession, 88% of prelicensure RN students enrolled at these institutions self-identified as female. Overall, despite the initial challenges associated with recruitment, the breadth of the final program sample fit the contours of our initial study design (Figure 4) and allowed NCSBN to secure responses from more than 1,100 student and faculty participants, including more than 4,000 course observations.

FIGURE 4

Final Study Design
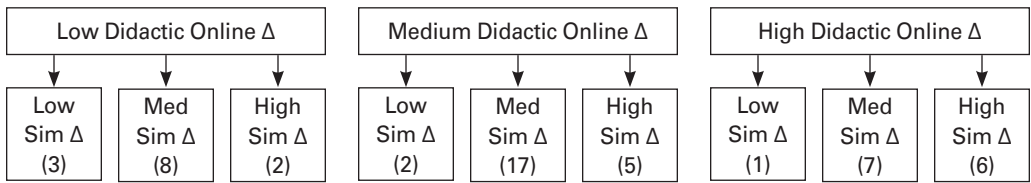
Note. Sim = simulation; Δ = Delta/Change.

Phase Two: Student and Faculty Self-Report Measures

In August 2020, NCSBN formally launched its longitudinal study with Phase Two which is divided into studentt and faculty self-report measures.

Student Self-Report Measures

Within-program information was collected from study participants when they consented to participate in the study and then throughout the study at the beginning and end of each course using a combination of general self-report and validated instruments, as described in the following Methods (see Appendix B).

Methods

Sample

The student cohort selected for participation comprised undergraduates entering the core of their didactic and clinical nursing coursework during the COVID-19 pandemic (e.g., fall 2020). Thus, all students in the spring 2022 cohort at a participating site were invited to enroll in the study via email and in-person communications by the nursing program deans and then in follow-up correspondence by the site research coordinators at study launch. The window to review background information and participation requirements, ask any necessary follow-up questions, and consent to participate remained open throughout the initial term during which their program opted to enter the study. Once students consented to participate, NCSBN researchers had access to self-reported contact information, including names and emails, so all subsequent correspondence and outreach was coordinated internally.

Self-Report Instruments

Prior to final dissemination among students, all general self-report instruments were reviewed for face validity by experienced nurse regulators and educators. Surveys were distributed via email and administered using Qualtrics. Precourse surveys remained open until

the end of each term, and postcourse surveys were available up to 6 weeks following the conclusion of the course with regularly scheduled weekly reminders. To support continued participation in the study, incentives were provided at both the institutional and student levels.

Specifically, programs that documented evidence of at least one student and faculty consent following formal study launch were awarded a $1,000 stipend. A second $1,000 retention stipend was disbursed at the start of the fall 2021 term. At the conclusion of each academic term, four students at each participating site (204 total across the 51 sites) were drawn at random from the pool of participants who completed and submitted their end of course surveys. Each of these students were awarded a $25 electronic gift card.

The instruments used to facilitate within-program student data collection were as follows:

1. Pregraduation didactic instruments:
   - Initial Student Consent and Demographic Questionnaire (Appendix B1)
   - Cognitive, Affective, and Psychomotor (CAP) Perceived Learning Scale (Appendix B2)
   - Student Course Engagement Questionnaire Modified (SCEQ-M) (Appendix B3)
2. Pregraduation clinical instruments:
   - Clinical Learning Environment Comparison Survey 2.0 (CLECS 2.0) (Appendix B4)

Externally Validated Instruments

Cognitive, Affective, and Psychomotor Perceived Learning Scale

The Cognitive, Affective, and Psychomotor (CAP) Perceived Learning Scale was developed and tested with students enrolled in both online and campus courses. Thus, it has utility across the entire delivery spectrum from fully online and blended courses to fully face-to-face instruction (Rovai et al., 2009). The CAP Perceived Learning Scale demonstrated good internal consistency, with a Cronbach's coefficient alpha of .79. Evidence of convergent and discriminant validity was also found. The CAP Perceived Learning Scale total scores can range from a low of 0 to a high of 54; scores for the three CAP subscales (i.e., cognitive, affective, and psychomotor) range from 0 to 18. Cognitive learning relates to the recall of knowledge and the development of intellectual abilities or skills. Affective learning pertains to the development of positive attitudes and behavior toward a particular topic. Psychomotor learning aligns more with skills development and task completion.

Student Course Engagement Questionnaire Modified

Research on college students' learning has found that educational outcomes are strongly linked to the level and type of student engagement (Nasir et al., 2020). The Student Course Engagement Questionnaire Modified (SCEQ-M) is designed to measure student engagement across learning modalities: in person, hybrid, and online. The SCEQ-M measures four dimensions of college student engagement with their courses: (a) applied engagement (9 items), (b) goal-oriented engagement (6 items), (c) self-disciplined engagement (5 items), and (d) interactive engagement (3 items). Instructions to complete the SCEQ-M are as follows: "To what extent do the following behaviors, thoughts, and feelings describe you, in this course? Please rate each of them on the following scale: 1 = not at all characteristic of me, 2 = not really characteristic of me, 3 = moderately characteristic of me, 4 = characteristic of me, and 5 = very characteristic of me." Scores on the SCEQ-M vary from a minimum of 23 to a maximum of 115 for the entire scale. SCEQ-M demonstrated good internal consistency across the four engagement factors, with Cronbach's coefficient alphas ranging from .71 to .86. Evidence of convergent and discriminant validity was also found.

Clinical Learning Environment Comparison Survey 2.0

The Clinical Learning Environment Comparison Survey (CLECS) was developed to assist nursing educators and regulatory bodies in better understanding how well the learning needs of students are met in traditional and simulated clinical environments (Leighton, 2015). The CLECS is comprised of the following subscales: (a) communication (4 items), (b) nursing process (6 items), (c) holism (6 items), (d) critical thinking (2 items), (e) self-efficacy (4 items), and (f) teaching–learning dyad (5 items). CLECS demonstrated good internal consistency and reliability across the six subscales, with Cronbach's coefficient alphas ranging from .73 to .90. Evidence of convergent and discriminant validity was also confirmed. In response to the rapid growth and utilization of virtual simulation during the pandemic, CLECS was extended and rebranded as CLECS 2.0 to capture students' perceptions of learning using screen-based simulation as well. While reliability data for the CLECS 2.0 has not yet been established, preliminary evidence suggests its application in virtual environments is sound (Leighton et al., 2021).

Data Analysis

All model-based results are expressed as means and standard errors (SEs). Due to the longitudinal nature of the data tracking, the total number of study participants varied throughout the observation period; however, more than 4,000 course observations (including lectures and clinical experiences) from more than 700 students who consented to participate in this study were utilized. GEE models were used to assess the significance of observed trends. All analyses were conducted using SAS version 9.4, and $p \leq .05$ was set as the threshold for evaluating statistical significance.

Results

Student Sample

While this was a voluntary study for which students opted-in, the profile of study participants aligned strongly with the overall institutional profile documented earlier (Table 3). The average age of students who participated in this longitudinal study was 25 (SD: 7.6) years. Approximately 12.5% of students self-identified as Hispanic, 75% as White, and 88% as female. Nearly one-third of participating students (n = 236, 32.9%) indicated they were Pell Grant recipients. A plurality was located in urban areas (n = 334, 46.5%), but sizable proportions of the participating students were located in suburban (n = 211, 29.4%) and rural (n = 157, 21.9%) locales. A majority of the student sample was enrolled at public institutions (n = 444, 61.8%) and were on semester-based academic schedules (n = 676, 94.2%). There were more BSN students (n = 432, 60.2%) than ADN (n = 286, 39.8%) students. The first-time NCLEX pass rate among participating students with at least one test administration date between March and December 2022 (e.g., predominantly the spring 2022 cohort) at participating sites was 89.6%. The overall NCLEX pass rate among participating students during the same period was 98.2%.

TABLE 3

Demographics of Participating Students (N = 722)

Demographics	n (%)[a]	Demographics	n (%)[a]
Age, y, M (SD)	25.3 (7.6)	Region	
Sex		Urban	334 (46.5%)
Female	634 (88.3%)	Suburban	211 (29.4%)
Male	82 (11.4%)	Rural	157 (21.9%)
Other	1 (0.1%)	Other	16 (2.2%)
Prefer not to report	1 (0.1%)	Institution Funding Profile	
Hispanic		Public	444 (61.8%)
Hispanic	90 (12.5%)	Private, not-for-profit	259 (36.1%)
Non-Hispanic	628 (87.5%)	Private, for-profit	15 (2.1%)
Race		Academic Schedule	
White	540 (75.2%)	Semesters	676 (94.2%)
Asian	58 (8.1%)	Trimesters	17 (2.4%)
Black	24 (3.3%)	Quarters	10 (1.4%)
Multi-racial	37 (5.2%)	Other	15 (2.1%)
Other	53 (8.2%)	Program Type	
Pell Grant Status		BSN	432 (60.2%)
Yes	236 (32.9%)	ADN	286 (39.8%)
No	481 (67.1%)	First-time NCLEX Pass Rate[b]	89.6%
		Overall NCLEX Pass Rate[b]	98.2%

Note. ADN = associate degree in nursing; BSN = bachelor of science in nursing; SD = standard deviation. Observed n varies across reported or tracked student characteristics.

[a] Data presented as n (%) unless otherwise indicated.

[b] For students with a NCLEX administration date between March and December 2022 (predominantly spring 2022 cohort).

Survey Findings

Overall, older students' self-reported perceptions of learning were higher than those of younger students (p = .01), driven primarily by differences in cognitive and psychomotor results (Table 4). Similarly, Pell Grant recipients (M: 39.57, SE: 0.78) also reported higher CAP scores, again particularly in the areas of cognitive and psychomotor learning, compared to their peers who did not report a Pell Grant (M: 37.01, SE: 0.59, p < .01). Students who enrolled in in-person (M: 38.91, SE: 0.66) and hybrid courses (M: 38.82, SE: 0.63) also reported consistently higher levels of learning compared to those in online learning environments (M: 35.19, SE: 0.76, both p < .001). While in-person learning appeared stronger than online learning across both the affective and psychomotor subscales, hybrid delivery formats were reported as superior across all domains. Furthermore, self-reported CAP perceived learning scores also gradually increased over the reporting period, with students in the spring 2022 term consistently reporting the highest scores (M: 39.73, SE: 0.91), which represented a meaningful increase from fall 2020 (M: 36.92, SE: 0.69, p < .01), particularly in the areas of cognitive and affective learning.

TABLE 4

Students' Cognitive, Affective, and Psychomotor (CAP) Perceived Learning Scale Results

Characteristics	Cognitive	Affective	Psychomotor	Sum
Age (*Unit* = 1)	1.06 (0.03)*	1.03 (0.03)	1.08 (0.03)**	1.17 (0.08)*
Sex				
Female *(Ref)*	12.07 (0.18)	12.89 (0.20)	12.86 (0.20)	37.82 (0.51)
Male	12.47 (0.52)	13.53 (0.74)	12.93 (0.53)	38.93 (1.63)
Hispanic				
Hispanic	12.38 (0.49)	13.16 (0.53)	13.18 (0.51)	38.72 (1.37)
Non-Hispanic *(Ref)*	12.08 (0.18)	12.90 (0.21)	12.81 (0.20)	37.79 (0.51)
Race				
White *(Ref)*	12.11 (0.46)	12.92 (0.21)	12.88 (0.21)	37.91 (0.53)
Non-white	11.99 (0.19)	12.85 (0.42)	12.57 (0.49)	37.40 (1.13)
Pell Grant Status				
Yes	12.63 (0.31)*	13.31 (0.34)	13.63 (0.26)**	39.57 (0.78)**
No *(Ref)*	11.84 (0.20)	12.73 (0.23)	12.44 (0.25)	37.01 (0.59)
Course Modality				
Online *(Ref)*	11.60 (0.27)	12.13 (0.30)	11.46 (0.36)	35.19 (0.76)
In person	12.14 (0.26)	13.44 (0.27)***	13.33 (0.27)***	38.91 (0.66)***
Hybrid	12.39 (0.23)**	13.05 (0.27)**	13.38 (0.23)***	38.82 (0.63)***
Term				
Fall 2020 *(Ref)*	11.85 (0.25)	12.40 (0.30)	12.67 (0.31)	36.92 (0.69)
Spring 2021	12.01 (0.36)	12.92 (0.27)	13.09 (0.25)	37.08 (0.95)
Fall 2021	12.04 (0.23)	12.76 (0.36)	12.31 (0.45)	38.05 (0.65)
Spring 2022	12.67 (0.34)*	13.92 (0.37)***	13.14 (0.36)	39.73 (0.91)**
Course Description				
Adult medical surgical *(Ref)*	12.17 (0.25)	12.83 (0.30)	14.04 (0.26)	39.04 (0.67)
Advanced medical surgical	12.60 (0.42)	13.57 (0.43)	13.77 (0.42)	39.94 (1.04)
Pediatrics	11.74 (0.51)	12.72 (0.51)	13.52 (0.45)	37.99 (1.18)
Community	11.39 (0.45)	12.06 (0.49)	11.27 (0.61)***	34.72 (1.30)**
Maternal-newborn	12.41 (0.34)	13.79 (0.36)*	13.60 (0.32)	39.79 (0.81)
Mental health	12.48 (0.40)	13.40 (0.44)	12.76 (0.44)**	38.64 (1.12)
Fundamentals	12.23 (0.28)	13.03 (0.32)	14.13 (0.28)	39.40 (0.73)
Region				
Urban *(Ref)*	11.67 (0.26)	12.26 (0.29)	11.87 (0.31)	35.79 (0.71)
Suburban	12.31 (0.34)	13.20 (0.35)*	13.65 (0.35)***	39.17 (0.96)***
Rural	12.35 (0.32)	13.49 (0.38)**	13.36 (0.29)***	39.21 (0.96)***
Other	13.48 (1.03)	14.21 (0.88)***	14.31 (0.62)***	42.00 (2.26)***
Program Type				
BSN *(Ref)*	11.56 (0.23)	12.32 (0.26)	12.13 (0.26)	36.00 (0.64)
ADN	12.85 (0.24)***	13.75 (0.26)***	13.84 (0.23)***	40.43 (0.63)***
Years in Operation (*Unit* = 10)	1.02 (0.08)	0.95 (0.08)	0.92 (0.06)	0.89 (0.17)

Note. ADN = associate degree in nursing; BSN = bachelor of science in nursing; Ref = reference. All estimates are presented as mean (standard error). Linear associations by age and years in operation are presented, with values below 1 indicating an inverse relationship and estimates above 1 a positive relationship.

* $p \leq .05$.
** $p \leq .01$.
*** $p \leq .001$.

Compared to students in adult medical surgical rotations (*M*: 39.04, *SE*: 0.67), students' self-reported perceptions of learning were lower in community rotations (*M*: 34.72, *SE*: 1.30, $p < .01$). While some variation was observed across the affective (maternal-newborn vs. adult medical surgical) and psychomotor (mental health vs. adult medical surgical) domains as well, none were sustained when reviewing overall perceptions of learning. Students enrolled at urban-based institutions (*M*: 35.79, *SE*: 0.71) consistently reported lower learning scores compared to both their suburban (*M*: 39.17, *SE*: 0.96) and rural (*M*: 39.21, *SE*: 0.96) counterparts (both $p <$

.001). These overall results were driven primarily by divergences observed on the affective and psychomotor subscales. Finally, cognitive, affective, and psychomotor learning scores were higher for students enrolled in ADN programs (*M*: 40.43, *SE*: 0.63) compared to BSN programs (*M*: 36.00, *SE*: 0.64, all *p* < .001).

For the SCEQ-M, self-reported engagement was also higher among older students (*p* < .01), especially across the applied, self-disciplined, and interactive domains (Table 5). Students who enrolled in in-person (*M*: 94.73, *SE*: 1.31, *p* < .01) and hybrid courses (*M*: 94.06, *SE*: 1.16) frequently reported higher levels of engagement compared to those in online learning environments (*M*: 91.56, *SE*: 1.24). Notably, though, in-person learning scores were consistently stronger than online formats across all four subscales, which drove a significant overall difference. By contrast, hybrid results varied a bit more, resulting only in an overall trend despite superior results in the areas of self-disciplined and interactive engagement. Self-reported engagement was also lower for students enrolled in community rotations (*M*: 87.55, *SE*: 1.94) compared to students in adult medical surgical rotations (*M*: 93.98, *SE*: 1.09, *p* < .01). The inverse relationship was observed comparing maternal-newborn (*M*: 97.51, *SE*: 1.46) and adult medical-surgical rotations (*p* = .02). Urban-based students (*M*: 90.56, *SE*: 1.39) reported the lowest engagement (suburban *M*: 95.50, *SE*: 1.56; rural *M*: 96.31, *SE*: 1.59, both *p* < .001).

TABLE 5

Student Course Engagement Questionnaire Modified (SCEQ-M) Results

Characteristics	Applied	Goal-Oriented	Self-Disciplined	Interactive	Sum
Age	1.06 (0.02)***	1.01 (0.02)	1.13 (0.04)**	1.10 (0.04)**	1.67 (0.34)**
Sex					
Female *(Ref)*	12.46 (0.14)	22.12 (0.17)	22.96 (0.31)	19.50 (0.26)	93.68 (0.92)
Male	12.53 (0.47)	21.75 (0.58)	22.71 (0.87)	20.03 (0.72)	93.51 (2.99)
Hispanic					
Hispanic	12.41 (0.50)	21.63 (0.50)	23.20 (0.85)	19.61 (0.62)	93.28 (2.70)
Non-Hispanic *(Ref)*	12.47 (0.14)	22.16 (0.17)	22.91 (0.31)	19.56 (0.27)	93.78 (0.92)
Race					
White *(Ref)*	12.21 (0.38)	22.19 (0.18)	23.00 (0.31)	19.62 (0.27)	93.98 (0.95)
Non-White	12.47 (0.15)	21.45 (0.43)	22.38 (0.77)	18.92 (0.67)	91.07 (2.40)
Pell Grant Status					
Yes	12.69 (0.23)	22.06 (0.30)	23.62 (0.51)	20.17 (0.41)	95.39 (1.59)
No *(Ref)*	12.34 (0.17)	22.11 (0.20)	22.58 (0.34)	19.24 (0.30)	92.80 (1.03)
Course Modality					
Online *(Ref)*	12.32 (0.23)	22.09 (0.24)	22.26 (0.39)	18.62 (0.37)	91.56 (1.24)
In person	12.50 (0.20)	22.28 (0.24)	23.04 (0.43)	19.95 (0.42)**	94.73 (1.31)**
Hybrid	12.48 (0.17)	21.93 (0.24)	23.25 (0.37)*	19.79 (0.29)**	94.06 (1.16)
Term					
Fall 2020 *(Ref)*	12.24 (0.17)	22.07 (0.21)	22.20 (0.39)	19.15 (0.30)	91.83 (1.11)
Spring 2021	12.71 (0.19)*	22.07 (0.24)	23.54 (0.39)**	19.28 (0.34)	94.38 (1.22)
Fall 2021	12.29 (0.28)	21.92 (0.34)	23.03 (0.55)	19.96 (0.44)	93.97 (1.71)
Spring 2022	12.37 (0.29)	22.28 (0.37)	22.75 (0.56)	20.18 (0.50)*	94.50 (1.75)
Course Description					
Adult medical surgical *(Ref)*	12.79 (0.17)	22.07 (.21)	23.30 (0.35)	19.20 (0.31)	93.98 (1.09)
Advanced medical surgical	12.79 (0.31)	22.89 (0.30)*	23.93 (0.59)	20.01 (0.75)	97.25 (1.67)
Pediatrics	12.52 (0.32)	21.77 (0.49)	23.23 (0.63)	19.64 (0.62)	93.81 (2.19)
Community	11.27 (0.34)***	21.75 (0.40)	20.21 (0.59)***	18.67 (0.53)	87.55 (1.94)**
Maternal-newborn	12.83 (0.24)	22.51 (0.28)	24.19 (0.47)*	20.68 (0.42)***	97.51 (1.46)*
Mental health	12.85 (0.24)	22.17 (0.33)	23.35 (0.48)	20.16 (045)*	95.68 (1.60)
Fundamentals	12.58 (0.20)	21.98 (0.29)	23.03 (0.44)	19.58 (0.34)	93.44 (1.36)
Region					
Urban *(Ref)*	11.99 (0.23)	21.89 (0.27)	21.68 (0.46)	18.79 (0.42)	90.56 (1.39)
Suburban	12.78 (0.24)*	22.03 (0.31)	23.90 (0.47)	19.99 (0.40)*	95.50 (1.56)*
Rural	12.72 (0.22)*	22.47 (0.27)	23.82 (0.56)**	20.26 (0.43)*	96.31 (1.59)**
Other	13.38 (0.36)**	22.57 (0.62)	23.67 (1.19)***	19.55 (1.19)	96.26 (3.55)

(continued)

Student Course Engagement Questionnaire Modified (SCEQ-M) Results *(continued)*

Characteristics	Applied	Goal-Oriented	Self-Disciplined	Interactive	Sum
Program Type					
BSN *(Ref)*	11.90 (0.18)	21.75 (0.22)	21.61 (0.37)	18.82 (0.33)	90.20 (1.11)
ADN	13.22 (0.15)***	22.60 (0.23)**	24.78 (0.36)***	20.53 (0.34)***	98.49 (1.19)
Years in Operation (*Unit* = 10)	0.88 (0.05)*	0.97 (0.07)	0.78 (0.09)	0.84 (0.08)	0.50 (0.18)

Note. ADN = associate degree in nursing; BSN = bachelor of science in nursing; Ref = reference. All estimates are presented as mean (standard error). Linear associations by age and years in operation are presented, with values below 1 indicating an inverse relationship and estimates above 1 a positive relationship.

* $p \le .05$.

** $p \le .01$.

*** $p \le .001$.

For the CLECS 2.0 results, students who attended in-person clinical experiences (*M*: 91.14, *SE*: 1.13, $p < .001$) and face-to-face simulations (*M*: 89.31, *SE*: 1.37, $p < .001$) consistently reported better clinical learning compared to those in virtual simulated environments (*M*: 76.32, *SE*: 1.64, Table 6). This pattern held true across all six subdomains (all $p < .001$). Summed CLECS 2.0 scores also steadily increased over the data collection window, with students reporting meaningfully higher scores across the 2-year period and even with the passage of each subsequent term (all $p < .05$). This trend was also observed for the Holism domain, but for the remaining five subscales, broader differences only emerged between the 2 academic years. In other words, students enrolled in courses in the 2021–2022 academic year regularly reported that their clinical needs related to communication, nursing process, critical thinking, self-efficacy, and teaching–learning dyad were better met than they were in the 2020–2021 academic year.

TABLE 6

Clinical Learning Environment Comparison Survey (CLECS) 2.0 Results

Characteristics	CLECS 2.0 Sum Score	Characteristics	CLECS 2.0 Sum Score
Age	1.01 (0.16)	Fall 2021	90.96 (2.20)***
Sex		Spring 2022	95.42 (1.63)***
Female *(Ref)*	86.14 (1.22)	Clinical Rotation	
Male	93.42 (3.38)	Adult medical surgical	84.76 (1.54)***
Hispanic		Advanced medical surgical *(Ref)*	93.39 (2.02)
Hispanic	85.40 (2.92)	Pediatrics	88.22 (2.49)
Non-Hispanic *(Ref)*	87.07 (1.25)	Community	81.67 (3.35)**
Race		Maternal-newborn	89.31 (2.40)
White *(Ref)*	87.00 (1.26)	Mental health	87.05 (2.26)*
Non-White	85.16 (2.82)	Fundamentals	85.00 (1.76)***
Pell Grant Status		Region	
Yes	87.82 (1.86)	Urban *(Ref)*	82.76 (1.95)
No *(Ref)*	86.21 (1.47)	Suburban	91.14 (1.85)**
Course Modality		Rural	87.42 (2.10)
Virtual simulation *(Ref)*	76.32 (1.64)	Other	81.50 (7.53)
In-person clinical placement	91.14 (1.13)***	Program Type	
Face-to-face simulation	89.31 (1.37)***	BSN *(Ref)*	84.83 (1.48)
Term		ADN	88.81 (1.78)
Fall 2020 *(Ref)*	80.73 (1.75)	Years in Operation (*Unit* = 10)	1.13 (0.50)
Spring 2021	85.06 (1.57)*		

Note. ADN = associate degree in nursing; BSN = bachelor of science in nursing; Ref = reference. All estimates are presented as mean (standard error). Linear associations by age and years in operation are presented, with values below 1 indicating an inverse relationship and estimates above 1 a positive relationship.

* $p \le .05$.

** $p \le .01$.

*** $p \le .001$.

Compared to students in their advanced medical surgical rotation (M: 93.39, SE: 2.02), students in their adult medical surgical (M: 84.76, SE: 1.54, $p < .001$), community (M: 81.67, SE: 3.35, $p < .01$), fundamentals (M: 85.00, SE: 1.76, $p < .001$), and mental health (M: 87.05, SE: 2.26, $p = .02$) rotations all reported lower clinical learning scores. This pattern held across five (communication, nursing process, critical thinking, self-efficacy, and teaching–learning dyad) of the six sub-domains (all $p < .05$). Students in their maternal-newborn rotation (M: 89.31, SE: 2.40) were also more likely to report that their clinical learning needs were better met than those in their community rotation ($p < .01$). Students enrolled at urban-based institutions (M: 82.76, SE: 1.95) reported lower clinical learning scores compared to their suburban counterparts (M: 91.14, SE: 1.85, $p < .001$). This trend held across all six subdomains (all $p < .05$).

Discussion

The proportion of students who self-identified as Hispanic (+3.5%), White (+12%), and female (no difference) aligned strongly with the overall institutional profile, indicating good representation among students from the participating programs. Similarly, like the programs, a plurality of students were located in urban areas (+1.4%), but sizable proportions of the participating students indicated suburban (-2.0%) and rural (+2.3%) areas as well. There was a bit more representation among the student sample regarding institutional tax status, with around 60% enrolled at public institutions (-6.8%), but a little less representation on program type (BSN +5.3%). First-time and overall NCLEX pass rates among participating students were similarly strong to the overall program outcomes.

Pandemic disruptions to traditional academic teaching models led to significant shifts in students' self-reported learning and engagement. For lecture-based courses, the delivery format and the stage of the pandemic drove meaningful differences among students' self-reported outcomes. In-person and hybrid courses consistently documented higher levels of learning compared to online learning environments. Similarly, students who attended in-person clinical experiences or participated in face-to-face simulations also reported better clinical learning compared to those in virtual simulated environments. Lecture-based and clinical learning scores both gradually increased over the reporting period, with students in each subsequent term reporting consistently better results. Overall, this may suggest links to early disruptions driven by pandemic surge events, the loosening of restrictions over time, and students' overall acclimation to new conditions.

Increases in students' self-reported engagement were also documented in person and through hybrid learning environments. Notably, as the use of online learning platforms and virtual screen-based simulations ebbed over time, students' reported engagement and learning increased. For instance, students participating in maternal-newborn and advanced medical surgical rotations, which appeared back loaded in the curriculum, often reported superior results in both rotations compared to earlier rotations in adult medical surgical and fundamentals. In addition, the community health rotation appeared to be a particularly poor fit for the new learning environments.

Interesting patterns also emerged based on select student demographics, as well as program location and type. Not surprisingly perhaps, stronger learning and engagement scores were documented among older students across both lecture-based and clinical settings. While Pell Grant recipients reported higher lecture-based learning scores, their engagement and clinical outcomes were comparable to non–Pell Grant recipients. Urban-based institutions consistently underperformed suburban and rural programs across the reported learning and engagement scales as well; however, these results were again driven primarily by course delivery format. While urban programs documented comparable rates of in-person clinical placements to their suburban and rural counterparts, they often substituted higher rates of virtual simulation (11.2% vs. 8.3% suburban and 4.0% rural) and comparatively lower rates of face-to-face simulation (68.1% vs. 72.5% suburban and 77.1% rural). In addition, urban institutions pivoted to online lecture learning (39.6%) at much higher rates than suburban (21.5%) and rural (6.5%) programs. Similar patterns emerged by program type, as BSN programs were significantly more likely to be in urban areas (81.0%) compared to suburban (32.1%) and rural (58.5%) locales.

Limitations

Since this was a voluntary opt-in research study, the students who opted to participate may not provide an entirely representative snapshot of the engagement and learning that took place at the participating prelicensure RN programs. Existing literature and the results of this study confirm that the lived experience of the COVID-19 pandemic is not universal, but rather it is often individual and dependent on the personal, academic, and professional stressors it introduces. Additionally, as with many longitudinal studies, observed attrition limited the number of observations available in advanced clinical experiences, relative to earlier clinical rotations, such as fundamentals and adult medical surgical. This phenomenon frequently presented in the form of slightly elevated SE estimates for certain courses.

Furthermore, the variable timing of students' NCLEX-RN administration and the aforementioned issues of attrition over the 2 academic years resulted in standardized examination scores being available for only half the consented sample ($n = 338$). Thus, the descriptive summary of students' NCLEX-RN results should be interpreted with caution as they provide only a partial snapshot of the cohort's overall examination performance. Related, the aggregate NCLEX-RN results reported in this analysis suggest the included programs and participating students outperformed national results over the same period. Therefore, it is possible the estimates and outcomes reported in this document may in fact underreport the true effect of the observed trends. In addition, a detailed breakdown

by student race is provided in the descriptive summary, but the low response n across non-White racial categories required that the variable be collapsed to a simpler White v. Non-White comparison for modeling. Finally, the findings of this analysis are correlational and do not support causal inference.

Conclusion

The one constant that emerged from the student self-report data was the multifaceted and wide-ranging impacts of programs' shifts to remote and virtual learning. Students reported lower levels of learning and engagement in both online lecture-based and virtual clinical settings. These results manifested time and again in a variety of ways, including observed trends by program setting, type, and Pell Grant status. In addition, and not surprisingly, the effects of the pandemic dissipated somewhat over time. This was clear from term-to-term results as well as from differences by clinical rotation.

Faculty Self-Report Measures

This second part of Phase Two focuses specifically on faculty self-report measures. Within-program information was collected from study participants when they provided consent and then throughout the study at the beginning and end of each course using a combination of general self-report and validated instruments, which are described in the following section and provided in Appendices B and C.

Methods

Sample

Any didactic or clinical faculty teaching eligible students at a participating study were invited to participate. All faculty were invited to enroll in the study via email and in-person communications by the nursing program deans and then in follow-up correspondence by the site research coordinators at study launch. Faculty participants were recruited on a rolling basis at the start of each academic term. This approach allowed NCSBN researchers to capture the often dynamic (e.g., due to turnover) faculty workforce at participating sites. After the fall 2020 term, all returning faculty were able to skip the consent process and proceed directly to the pre-course survey questionnaire, while new faculty participants were provided background on the study and asked to consent. The window to review background information and participation requirements, ask any necessary follow-up questions, and consent to participate remained open throughout each academic term. Once faculty consented to participate, NCSBN researchers had access to self-reported contact information, including names and emails, so all subsequent correspondence and outreach was coordinated internally.

Self- Report Instruments

Prior to final dissemination of the surveys among faculty, all general self-report instruments were reviewed for face validity through coordination with experienced nurse regulators and educators. Surveys were distributed via email and administered using Qualtrics. Precourse surveys remained open until the end of each term, and postcourse surveys were available for up to 6 weeks following the conclusion of the course (faculty were emailed weekly reminders). Clinical instructors were also asked to provide up to two evaluations of each student who consented to participate using the Creighton Competency Evaluation Instrument (CCEI).

The instruments used to facilitate within-program faculty data collection were as follows:

1. Pregraduation didactic instruments
   - Precourse Faculty Questionnaire (Appendix C1)
   - Postcourse Faculty Questionnaire (Appendix C2)
2. Pregraduation clinical instruments
   - CCEI (Appendix C3)
   - Precourse Faculty Questionnaire
   - Postcourse Faculty Questionnaire

Creighton Competency Evaluation Instrument

The CCEI is a 23-item tool used by clinical instructors to rate students on behaviors that collectively demonstrate clinical competency (assessment, communication, clinical judgment, and patient safety). The tool is employed in this study to assess how well students progressed across three settings: in-person clinical, face-to-face simulation, and virtual simulation experiences. The CCEI has demonstrated good internal consistency, with a Cronbach's coefficient alpha of .97 (Hayden, Keegan, Kardong-Edgren, & Smiley, 2014). Evidence also supported the convergent and discriminant validity of the tool.

Data Analysis

All model-based results are expressed as means and standard errors. Due to the longitudinal nature of the data tracking, the total number of study participants varied throughout the observation period; however, more than 4,000 course observations (including lectures and

clinicals) from the more than 400 faculty who consented to participate in this study were utilized. GEE models were used to assess the significance of observed trends. All analyses were conducted using SAS version 9.4, and $p \leq .05$ was considered statistically significant.

Results

Faculty Sample

The average age of faculty who participated in this longitudinal study was 48 (*SD*: 12.5) years (Table 7). More than 90% of faculty self-identified as female (*n* = 295, 94.0%), non-Hispanic (*n* = 309, 98.4%), and White (*n* = 285, 90.8%). Approximately half of participating faculty indicated they were either an instructor (*n* = 100, 31.4%) or adjunct professor (*n* = 83, 26.1%). Most participants reported a master's degree (*n* = 174, 55.8%) as their highest degree and noted that they served in non-tenured positions (*n* = 223, 71.5%). Two-thirds of faculty taught clinical rotations (*n* = 294, 67.7%), worked in a BSN program (n = 269, 65.8%), and worked at a public institution (*n* = 274, 67.0%). Nearly all faculty taught on a semester-based academic schedule (*n* = 391, 95.6%). Just over half of the faculty taught at institutions in urban areas (*n* = 207, 50.6%), but sizable proportions indicated suburban (*n* = 129, 31.5%) and rural (*n* = 67, 16.4%) areas as well.

TABLE 7

Demographics of Participating Faculty (*N* = 434)

Demographics	*n* (%)[a]	Demographics	*n* (%)[a]
Age, y, *M* (*SD*)	47.7 (12.5)	Tenure Status	
Sex		Nontenured	223 (71.5%)
Female	295 (94.0%)	Tenured track	47 (15.1%)
Male	17 (5.4%)	Tenured	42 (13.5%)
Prefer not to report	2 (0.6%)	Course Format	
Hispanic		Clinical	294 (67.7%)
Hispanic	5 (1.6%)	Lecture	140 (32.3%)
Non-Hispanic	309 (98.4%)	Institution Funding Profile	
Race		Public	274 (67.0%)
White	285 (90.8%)	Private, not-for-profit	135 (33.0%)
Black	10 (3.2%)	Academic Schedule	
Asian	6 (1.9%)	Semesters	391 (95.6%)
Multi-racial	6 (1.9%)	Trimesters	14 (3.4%)
Other	7 (2.2%)	Quarters	4 (1.0%)
Position		Program Type	
Instructor	100 (31.4%)	BSN	269 (65.8%)
Adjunct	83 (26.1%)	ADN	140 (34.2%)
Assistant professor	60 (18.9%)	Region	
Associate professor	35 (11.0%)	Urban	207 (50.6%)
Full professor	40 (12.6%)	Suburban	129 (31.5%)
Highest Degree		Rural	67 (16.4%)
Baccalaureate	37 (11.9%)	Other	6 (1.5%)
Master's	174 (55.8%)		
Post-master's	12 (3.9%)		
Doctorate	89 (28.5%)		

Note. ADN = associate degree in nursing; BSN = bachelor of science in nursing. Observed *n* varies across reported or tracked faculty characteristics.
[a] Data presented as *n* (%) unless otherwise indicated.

Of the 294 faculty who reported teaching a clinical rotation, three-quarters (*n* = 225, 76.5%) reported a simulation component (*n* = 199, *Mdn*: 20%, *IQR*: 10%–30%). For most in this situation (*n* = 142, 68.3%), face-to-face simulation (*n* = 85, *Mdn*: 10%, *IQR*: 5%–25%) was substituted for in-person clinical training, but a notable proportion (*n* = 94, 45.2%) reported employing virtual learning environments as well (*n* = 85, *Mdn*: 10%, *IQR*: 5%–25%). Notably, most faculty reported very little experience with simulation-based instruction (*n* = 204, *Mdn*: 3 years, *IQR*: 2–7 years) and almost none of the faculty indicated they were Certified Healthcare Simulation Educators (CHSEs; *n* = 5, 2.4%). For those using screen-based simulation, only half (*n* = 42, 47.2%) reported prior experience teaching virtually. Most indicated their program leveraged online software packages, such as screen- or computer-based branching narratives (*n* = 49, 55.1%).

For faculty who taught through lectures, a much larger proportion (n = 111, 79.3%) reported prior, albeit minimal (*Mdn*: 2 years, *IQR*: 1–6 years) online teaching experience. Most indicated they taught similar material the prior term (n = 88, 63.3%). Not surprisingly, the proportion of faculty reporting remote lectures completely flipped year-to-year. In fall 2019, about 10% of faculty (n = 11, 12.5%) reported teaching the lecture component of students' coursework entirely online, but that figure jumped to more than one-third (n = 51, 37.0%) in fall 2020. While approximately 70% of lecture-based instruction was delivered in person in fall 2019 (n = 62, 70.5%), a nearly identical proportion (n = 98, 71.0%) was delivered entirely online or in a hybrid setting in fall 2020. Unlike students' clinical rotations, the proportion of online (*Mdn*: 50%, *IQR*: 20%–50%) and in-person (*Mdn*: 50%, *IQR*: 40%–75%) lecture content was evenly split.

Survey Findings

Overall, faculty consistently rated older students' clinical competency higher than younger students (p < .01, Table 8). Similarly, White students (*M*: 20.04, *SE*: 0.22) also received higher CCEI scores compared to their non-White peers (*M*: 17.52, *SE*: 0.77, p < .01). Faculty tended to rate students who attended face-to-face simulation (*M*: 20.28, *SE*: 0.35) higher compared to those in virtual simulated learning environments (*M*: 17.62, *SE*: 1.17, p = .02). While not significant, a similar trend also emerged for students who attended in-person clinical placements (*M*: 19.84, *SE*: 0.75, p = .10). Unlike the student self-report measures, faculty observations and ratings of clinical competence gradually declined over the reporting period, with students in the spring 2022 term receiving significantly lower scores (*M*: 18.37, *SE*: 1.13) compared to the fall 2020 term (*M*: 20.85, *SE*: 0.62, p = .05).

TABLE 8

Creighton Competency Evaluation Instrument (CCEI) Results by Student Characteristics

Student Characteristics	CCEI Sum Score	Student Characteristics	CCEI Sum Score
Age	1.09 (0.03)**	Fall 2021	20.24 (0.64)
Sex		Spring 2022	18.37 (1.13)*
Female *(Ref)*	19.87 (0.23)	Clinical Rotation	
Male	19.14 (0.66)	Adult medical surgical *(ref)*	20.32 (0.25)
Hispanic		Advanced medical surgical	21.78 (0.24)***
Hispanic	19.43 (0.61)	Pediatrics	20.33 (0.54)
Non-Hispanic *(Ref)*	19.83 (0.23)	Community[a]	-
Race		Maternal-newborn	21.58 (0.24)***
White *(Ref)*	20.04 (0.22)	Mental	19.09 (0.67)
Non-White	17.52 (0.77)**	Fundamentals	19.64 (0.75)
Pell Grant Status		Region	
Yes	19.95 (0.40)	Urban *(Ref)*	18.56 (0.44)
No *(Ref)*	19.77 (0.26)	Suburban	19.93 (0.30)**
Course Modality		Rural	20.65 (0.26)***
Virtual simulation *(ref)*	17.62 (1.17)	Other	22.20 (0.20)***
In person clinical placement	19.84 (0.75)	Program Type	
Face-to-face simulation	20.28 (0.35)*	BSN *(Ref)*	19.04 (0.31)
Term		ADN	20.73 (0.24)***
Fall 2020 *(Ref)*	20.85 (0.62)	Years in Operation (*Unit* = 10)	1.28 (0.12)*
Spring 2021	20.13 (0.52)		

Note. ADN = associate degree in nursing; BSN = bachelor in science in nursing; Ref = reference. Data are presented as mean (standard error).
[a] Not reported because scores were often artificially deflated in simulated environments by the higher rate of not applicable responses.
* p ≤ .05.
** p ≤ .01.
*** p ≤ .001.

Faculty also consistently rated students in their advanced medical surgical (*M*: 21.78, *SE*: 0.24) and maternal-newborn (*M*: 21.58, *SE*: 0.24) rotations higher than all other rotations (p < .05). Faculty at urban-based institutions (*M*: 18.56, *SE*: 0.44) also scored students' clinical competence lower compared to faculty at suburban (*M*: 19.93, *SE*: 0.30, p < .01) and rural (*M*: 20.65, *SE*: 0.26, p < .001) programs. Finally, faculty at more established institutions rated students' clinical competency higher than did faculty at newer programs (p = .02).

Postcourse faculty responses indicated a good deal of continuity in instructional content from fall 2019 to fall 2020, with approximately three-quarters of respondents indicating they taught the same lecture (n = 189, 78.4%) or clinical rotation (n = 207,

77.8%) during the prior term (Table 9). However, between 40% to 50% of faculty indicated the format of their lecture-based (*n* = 124, 47.3%) and/or clinical instruction (*n* = 99, 41.3%) changed in fall 2020 due to significant shifts online or to face-to-face and virtual simulation. Faculty-reported engagement, work quality, and learning outcomes generally remained strong in fall 2020. Nonetheless, both didactic (*n* = 67, 35.9% much/less engaged) and clinical (*n* = 64, 32.0% much/less engaged) faculty reported notable proportions of reduced student engagement, as well as some dips in didactic (*n* = 46, 24.6% much/poorer quality) and clinical (*n* = 43, 21.6% much/poorer quality) work quality. Even against that backdrop, though, approximately four in five faculty noted learning outcomes were met or exceeded at about the same level as the prior academic year.

TABLE 9

Postcourse Faculty Self-Reported Items

Faculty Survey Items	Lectures	Clinical Rotations
Taught Course Prior to Fall 2020		
Yes	189 (78.4%)	207 (77.8%)
No	52 (21.6%)	59 (22.2%)
Updated Delivery Format (2019 vs. 2020)		
Yes	124 (47.3%)	99 (41.3%)
No	138 (52.7%)	141 (58.8%)
Revised Delivery Format – Lecture		
In person	117 (48.8%)	-
Hybrid	56 (23.3%)	-
Online	67 (27.9%)	-
Revised Delivery Format – Clinical		
Mix of in person and face-to-face simulation	-	38 (31.4%)
Mix of in person and virtual simulation	-	23 (19.0%)
Mix of in person, face-to-face simulation, and virtual simulation	-	49 (40.5%)
Mix of face-to-face simulation and virtual simulation	-	11 (9.1%)
Current Engagement		
Not engaged at all	3 (1.3%)	1 (0.4%)
Somewhat engaged	66 (27.6%)	34 (13.1%)
Generally engaged	127 (53.1%)	143 (55.2%)
Very engaged	43 (18.0%)	81 (31.3%)
Engagement – Term Comparisons		
Much less engaged	8 (4.3%)	6 (3.0%)
Less engaged	59 (31.6%)	58 (29.0%)
No change	83 (44.4%)	89 (44.5%)
More engaged	30 (16.0%)	43 (21.5%)
Much more engaged	7 (3.7%)	4 (2.0%)
Current Work Quality/Performance		
Very low quality (L)/performance (C)	2 (0.8%)	1 (0.4%)
Low quality (L)/performance (C)	19 (8.0%)	26 (10.1%)
Neither	41 (17.2%)	21 (8.1%)
Good quality (L)/performance (C)	147 (61.5%)	163 (63.2%)
Very good quality (L)/performance (C)	30 (12.6%)	47 (18.2%)
Work Quality – Term Comparisons		
Much poorer quality (L)/performance (C)	5 (2.7%)	2 (1.0%)
Poorer quality (L)/performance (C)	41 (21.9%)	41 (20.6%)
About the same quality (L)/performance (C)	103 (55.1%)	126 (63.3%)
Better quality (L)/performance (C)	34 (18.2%)	27 (13.6%)
Much better quality (L)/performance (C)	4 (2.1%)	3 (1.5%)
Learning Outcomes		
Did not meet learning outcomes	1 (0.4%)	-
Partially met learning outcomes	22 (9.2%)	28 (10.9%)
Met learning outcomes	202 (84.9%)	219 (85.2%)
Exceeded learning outcomes	13 (5.5%)	10 (3.9%)

(continued)

Postcourse Faculty Self-Reported Items *(continued)*

Faculty Survey Items	Lectures	Clinical Rotations
Learning Outcomes – Term Comparisons		
Many fewer students met learning outcomes	3 (1.6%)	2 (1.0%)
Fewer students met learning outcomes	30 (16.0%)	38 (19.2%)
About the same number met learning outcomes	119 (63.6%)	131 (66.2%)
More students met learning outcomes	32 (17.1%)	24 (12.1%)
Many more students met learning outcomes	3 (1.6%)	3 (1.5%)
Online Proportion	50.0% (25.0%–75.0%)	-
In-person Proportion	42.5% (10.0%–70.0%)	60.0% (30.0%–80.0%)
Face-to-Face Simulation Proportion	-	10.0% (0%–25.0%)
Virtual Simulation Proportion	-	10.0% (0%–25.0%)

Note. C = clinical; L = lecture. Observed *n* varies across reported or tracked faculty characteristics. Data presented as *n* (%) except for continuous variables, which are expressed as median (interquartile range).

Discussion

The faculty demographic profile was less diverse than the student sample, with less than 10% of the participants self-identifying as non-White (9.2%), male (6.0%), and Hispanic (1.6%). Otherwise, the proportion of faculty from public institutions (67.0%) and programs located in urban areas (49.4%) suggested a comparable instructor composition. Most faculty were non-tenure track part-time instructors or adjuncts, and nearly two-thirds of participants taught clinical rotations. Notably, given the impact of course delivery format, most faculty reported very little experience with simulation-based instruction (*Mdn*: 3 years) and almost none indicated they were CHSEs (2.4%).

Like students, faculty tended to provide higher ratings for in-person clinicals and face-to-face simulation compared to online simulated learning environments. As before, this finding drove associations by program setting as well, with urban institutions appearing to underperform compared with suburban and rural programs. In addition, CCEI scores were highest for students in their advanced medical surgical and maternal-newborn clinical rotations. In contrast to student self-report outcomes, though, faculty observations and ratings of clinical competence gradually declined over the reporting period. Overall, faculty reported engagement, work quality, and learning outcomes generally remained strong in fall 2020. However, both didactic and clinical faculty reported notable reductions in student engagement and work quality.

Limitations

Considering that this was a voluntary, opt-in research study, it is important to note that the faculty who opted to participate may not provide an entirely representative snapshot of the outcomes at the participating prelicensure RN programs. As noted, existing literature aligns with the findings of this study and supports the view that the lived experiences of the COVID-19 pandemic is not universal, but rather individual and dependent on personal, academic, and professional stressors. Furthermore, there was an imbalance in the CCEI submissions, both at the institutional and faculty levels. Specifically, larger proportions of CCEI observations were submitted by certain faculty and institutions; thus, it could make insights gained from these scales less broadly applicable. In addition, a detailed breakdown by faculty race is provided in the descriptive summary, but the low response *n* across non-White racial categories required that the variable be collapsed to a simpler White v. Non-White comparison for modeling. Finally, the findings of this analysis are correlational and do not support causal inference.

Conclusion

Faculty responses resonated with student results, attesting to the broad disruptive effects of the pandemic on students' learning and engagement. Given the importance of course delivery format, as confirmed across student and faculty self-report data, the mismatch in faculty experience and training with simulation is striking. The level of consistency across both cohorts made areas in which they diverged that much more pronounced. Nowhere was that more apparent than with faculty ratings of clinical competence over time. Unlike student reported outcomes, faculty tended to rate student performance lower as they progressed through the program and study. This may be an artifact of students' aggregate or accumulated learning loss over the term of their academic program as faculty initially reported engagement, work quality, and learning outcomes generally remained strong in fall 2020 and did not diverge too greatly from prior terms.

Phase Three: Standardized Examination Measures and New Graduates' Early Career Outcomes

The third phase of the study is divided into two sections: standardized examination scores and new graduates' early career outcomes. The first section focuses specifically on the within-program and postgraduation standardized examination scores for participating students. The second section of Phase Three focuses specifically on new graduate self-reported career measures.

Standardized Examination Measures

Within-program information was collected directly from site coordinators at the conclusion of participants' course of study. This date varied somewhat from program-to-program, but typically fell between March and June 2022. Postgraduation NCLEX-RN results were then tracked up to 6 months following the typical graduation timeframe for most student participants in the spring 2022 cohort (e.g., May 2022).

Methods

Following the formal closure of the within-program data collection phase of the longitudinal study, NCSBN collaborated with site coordinators directly to access within-program standardized test scores for student participants in this study. Relevant scores included ATI, HESI, and Kaplan examination results. NCLEX-RN results were captured in two ways. Student participants were contacted directly 3 and 6 months after graduation and asked to complete the New Graduate Nurse Performance Survey (NGNPS). To qualify to complete the NGNPS, these new graduates had to indicate they had taken and passed the NCLEX-RN and were presently employed in a nursing position. In addition, the Research Department coordinated with NCSBN's Examination Division to review and report summary (e.g., program-level) NCLEX-RN examination scores from March 1 through December 15, 2022.

Additionally, NCSBN analyzed course (ATI, HESI, Kaplan) and NCLEX-RN examination scores at the program level. Thus, de-identified summary pass rates were aggregated to the program-level and compared against similarly aggregated program characteristics associated with both the institutional and student demographic profile, as well as changes to course delivery formats. Any changes to course delivery formats were captured both at the start of the COVID-19 pandemic (fall 2020) and through sustained data tracking throughout the reporting window (fall 2020–spring 2022) given the dynamic nature of the pandemic and programs' responses to it. Programmatic and course delivery format details were reported primarily by administrative and faculty participants, but information from students' self-report data was available for cross-reference and confirmatory purposes.

Summary NCLEX-RN results for all 51 participating programs were sourced directly from NCSBN's Examination Division. Trends were analyzed to identify any potential correlations with select institutional characteristics as well as changes to course delivery formats, as reported by faculty participants. As for within-program scores, NCSBN leveraged participating faculty's reporting throughout the data collection window (fall 2020–spring 2022) to accurately capture and characterize the dynamic nature of the pandemic and programs' responses to it. This information was again aggregated to the program-level (e.g., to calculate mean increases to the proportion of course-level virtual simulation use) and appended to the summary NCLEX-RN results. Importantly, the summary NCLEX-RN results reported at the program-level for this portion of the analysis reflect the overall results of all test-takers at a participating site. Any test-taker who attempted the NCLEX-RN examination at least once between March 1 and December 15, 2022 was included.

Variable Coding

To standardize reported outcomes using within-program examination scores, ATI, HESI, and Kaplan results were combined and recoded as a composite binary outcome (pass/fail). Select independent variables were also recoded based on their underlying values to facilitate group analysis. Namely, programs' changes to their course delivery formats, both at the start of the pandemic (fall 2020) and throughout the reporting window (fall 2020–spring 2022), were recast as binary predictors, using the median value from the underlying distribution as a cut-point. For instance, initial (fall 2020) changes to the proportions of face-to-face simulation programs used were binned based on values less than and greater than or equal to 15% (e.g., the observed median value in the sample). Similar recoding logic was applied to initial changes to virtual simulation usage (cut at 14%) and initial changes to online lectures (cut at 61%). From thereafter, changes at the course-level were averaged to determine an overall mean change to face-to-face simulation (cut at 12.5%), virtual simulation (cut at 20%), and online lectures (cut at 46.25%). Finally, the proportions of clinical (cut at 50%) and didactic (cut at 37.5%) courses with some manner of delivery format change were also tracked for each institution.

Data Analysis

Individual nursing programs served as the primary unit of measurement when examining students' summary standardized test scores. Given the small institutional sample size (n = 51), continuous variables are expressed as medians and IQRs. Categorical results were reported as frequencies and proportions. Due to the small sample size and the often non-normally distributed nature of the aggregated results, all group comparisons employed nonparametric statistical measures to determine the significance of observed trends. For two-group comparisons on continuous outcomes, the nonparametric analog to the independent samples t test, the Wilcoxon-Mann-Whitney

test, was employed; for comparisons of three or more groups, the Kruskal-Wallis test was used. For group comparisons on categorical outcomes, a Fisher's exact test was used due to low expected cell counts. All analyses were conducted using SAS version 9.4, and $p \leq$ .05 was established as the threshold for statistical significance.

Results

ATI, HESI, and Kaplan results were shared for only 45.8% (n = 331) of student participants in this study. Across all course types, the overall pass rate was just 62.2%, with outcomes ranging from a 52.2% pass rate for students in their maternal-newborn rotations to 80.5% for advanced medical surgical. There was little variation in within-program standardized examination scores by aggregate institutional characteristics (Table 10). BSN programs (*Mdn*: 56.3%, *IQR*: 39.2%–67.6%) and ADN (*Mdn*: 52.2%, *IQR*: 42.9%–70.8%) programs reported comparable results, as did those institutions located in urban (*Mdn*: 66.7%, *IQR*: 31.2%–82.5%), suburban (*Mdn*: 50.3%, *IQR*: 44.8%–59.4%), and rural (*Mdn*: 52.0%, *IQR*: 39.8%–59.0%) areas. While the observed raw scores for programs that had pronounced difficulty arranging in-person clinical placements were lower, the comparison did not reach statistical significance (p = .18). However, variables that represented likely contingency measures did emerge. Namely, programs that reported pronounced increases in their utilization of virtual simulation (p = .05), and particularly those that indicated no additional institutional resources to support such a transition (p = .03), documented corresponding declines in their ATI, HESI, and Kaplan results. Conversely, those programs that increased their utilization of face-to-face simulation (p = .04) documented higher ATI, HESI, and Kaplan results.

TABLE 10
Program Comparisons on Standardized Examination Scores

Faculty Outcomes	In-Program Scores[a]	p	NCLEX Scores	p
Program type				
BSN	56.3% (39.2%–67.6%)	.47	89.5% (80.4%–92.7%)	.50
ADN	52.2% (42.9%–70.8%)		88.5% (83.3%–91.3%)	
Region				
Urban	66.7% (31.2%–82.5%)		88.0% (80.3%–92.5%)	
Suburban	50.3% (44.8%–59.4%)	.85	88.3% (82.3%–93.1%)	.57
Rural	52.0% (39.8%–59.0%)		91.1% (88.5%–92.7%)	
Difficulty Arranging Clinical Rotations				
Similar level of difficulty	52.2% (44.4%–77.9%)		88.3% (82.3%–92.7%)	
Somewhat more difficult	62.5% (48.4%–66.7%)	.18	88.5% (86.1%–92.7%)	.97
Much more difficult	38.1% (0.0%–52.0%)		85.1% (78.1%–94.9%)	
Resources for Virtual Simulation				
Maintaining same levels prior	52.2% (39.2%–66.7%)		90.9% (75.9%–93.1%)	
No	39.8% (38.1%–52.0%)	.03	87.5% (80.4%–90.7%)	.51
Yes	82.9% (63.0%–86.7%)		89.1% (83.1%–93.1%)	
Initial Simulation (F) Increase				
<15%	59.0% (39.2%–67.7%)	.49	90.9% (84.6%–92.7%)	.18
≥15%	50.3% (44.8%–70.5%)		88.5% (81.5%–91.3%)	
Initial Virtual Simulation Increase				
<14%	59.0% (38.1%–67.6%)	.31	89.9% (83.3%–92.7%)	.50
≥14%	52.1% (45.2%–77.9%)		88.7% (83.1%–92.5%)	
Initial Online Lecture Increase				
<61%	54.4% (39.8%–82.5%)	.21	90.8% (87.1%–92.9%)	.08
≥61%	53.8% (42.9%–66.7%)		87.7% (81.5%–91.3%)	
Mean Simulation (F) Increase				
<12.5%	39.8% (38.1%–59.0%)	.04	88.5% (80.0%–92.7%)	.34
≥12.5%	63.0% (45.2%–86.7%)		87.5% (83.3%–93.1%)	
Mean Virtual Simulation Increase				
<20%	66.7% (39.8%–86.7%)	.05	87.5% (75.9%–92.5%)	.25
≥20%	45.2% (39.2%–59.0%)		88.5% (80.3%–93.1%)	
Mean Online Lecture Increase				
<46.25%	54.1% (39.2%–62.5%)	.23	88.7% (83.3%–92.7%)	.47
≥46.25%	63.0% (45.2%–67.6%)		90.2% (84.6%–92.5%)	

| Faculty Outcomes	In-Program Scores[a]	p	NCLEX Scores	p
Total Clinical Courses Changed				
<50%	56.3% (39.2%–77.9%)	.43	90.8% (80.3%–92.7%)	.28
≥50%	58.7% (44.8%–67.2%)		87.9% (81.6%–93.1%)	
Total Didactic Courses Changed				
<37.5%	48.6% (39.5%–74.4%)	.27	92.6% (86.1%–94.2%)	.003
≥37.5%	62.8% (45.6%–67.2%)		86.7% (78.7%–89.9%)	

Note. ADN = associate degree in nursing; BSN = bachelor of science in nursing; F = face-to-face simulation. Observed *n* varies across reported or tracked faculty characteristics. Data are expressed as median (interquartile range).

aWithin-program test scores include Assessment Technology Institute, Health Education Systems, Inc., and Kaplan examinations.

Comprehensive NCLEX-RN results were available for more than 4,000 new graduates at participating programs. Across the 51 sites, the overall NCLEX-RN pass rate was 91.0% with outcomes ranging from 76.9% to 100%. Students' first-time NCLEX-RN pass rate was 85.0%, with outcomes ranging from 69.2% to 100%. Like the within-program standardized examination scores, there was little variation in NCLEX-RN results by aggregate institutional characteristics. BSN (*Mdn*: 89.5%, *IQR*: 80.4%–92.7%) and ADN (*Mdn*: 88.5%, *IQR*: 83.3%–91.3%) programs reported comparable results, as did those institutions located in urban (*Mdn*: 88.0%, *IQR*: 80.3%–92.5%), suburban (*Mdn*: 88.3%, *IQR*: 82.3%–93.1%), and rural (*Mdn*: 91.1%, *IQR*: 88.5%–92.7%) areas. While programs' summary NCLEX-RN results did not vary much based on their increased utilization of face-to-face and virtual simulation, they did correlate somewhat with the delivery format for lecture-based content. Specifically programs that reported the most pronounced increases in online didactic instruction documenting slightly lower overall NCLEX-RN results (*p* = .08). This difference was most evident for programs that reported the delivery formats for a larger proportion of their lecture-based courses had been updated and moved online due to the pandemic (*p* = .003). Such shifts were consistent throughout the 2-year window, but they were most pronounced during the 2020–2021 academic cycle (51% vs. 41.9%, Figure 5).

FIGURE 5

Proportion of Lectures Completed Online by Term
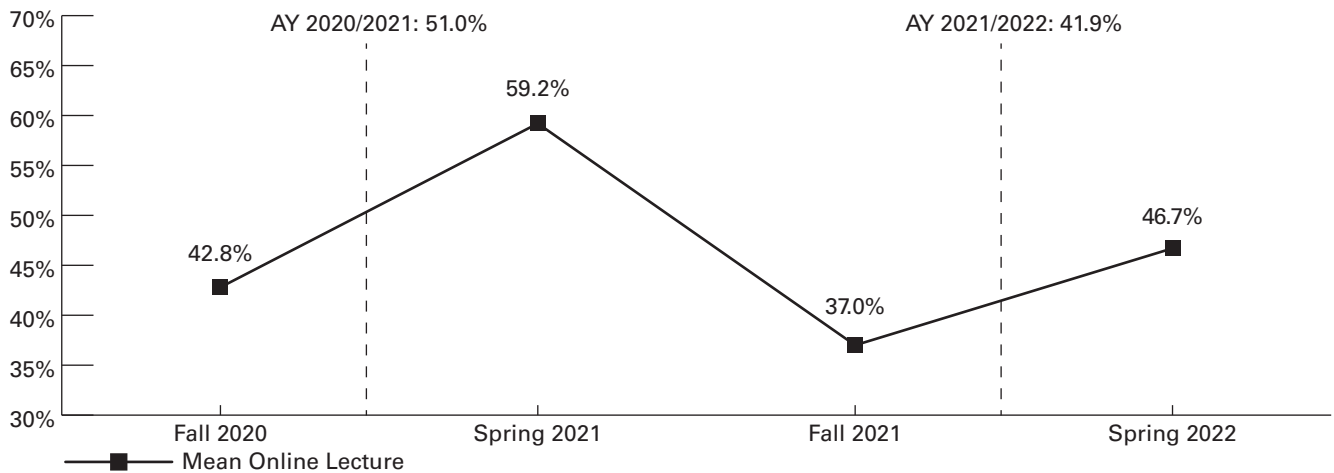
Note. AY = academic year.

Participating programs were also categorized into one of two groups based on whether or not they met or surpassed the 80% first-time NCLEX-RN passing threshold and were compared on an array of institutional characteristics (Table 11). Most programs in the study (*n* = 43, 84.3%) met this standard, while eight (15.7%) fell short. For programs that reported overall NCLEX-RN pass rates equal to or greater than 80%, outcomes ranged from 80% to 100%. Programs that documented a first-time NCLEX-RN pass rate below 80% had first-time pass rates that ranged from 63.6% to 78.7%. As with earlier comparisons on standardized examination results, there was little variation in NCLEX-RN results by aggregate institutional characteristics. Similarly high proportions of BSN (*n* = 22, 78.6%) and ADN (*n* = 19, 90.5%) programs reported first-time NCLEX-RN pass rates equal to or greater than 80%. In addition, no discernable patterns emerged based on region (*p* = .31) or reported difficulty of arranging in-person clinical placements for students (*p* = .42).

TABLE 11

Program Comparisons on Aggregate First-Time NCLEX Pass Rates

Program Characteristics	First-Time NCLEX Pass Rate		p
	<80%	≥80%	
Program Type			
BSN	6 (21.4%)	22 (78.6%)	.24
ADN	2 (9.5%)	19 (90.5%)	
Region			
Urban	6 (26.1%)	17 (73.9%)	
Suburban	2 (12.5%)	14 (87.5%)	.31
Rural	0 (0%)	10 (100%)	
Difficulty Arranging Clinical Rotations			
Similar level of difficulty	1 (25.0%)	3 (75.0%)	
Somewhat more difficult	5 (22.7%)	17 (77.3%)	.42
Much more difficult	2 (10.0%)	18 (90.0%)	
Resources for Virtual Simulation			
Maintaining the same levels	2 (16.7%)	10 (83.3%)	
No	2 (28.6%)	5 (71.4%)	.66
Yes	4 (14.8%)	23 (85.2%)	
In-Program Scoresa	62.5% (38.1%–63.0%)	52.2% (42.9%–70.8%)	.38
Years in Operation	65 (43–76)	54 (37–58)	.21
Full-time Faculty	24 (13–40)	11 (8–22)	.11
Required Clinical Hours	630 (150–675)	697 (550–750)	.07
Fall 2020 Student Enrollment	37 (20–109)	54 (30–97)	.40
Proportion of White Students	75.0% (63.0%–84.0%)	60.0% (36.5%–82.0%)	.06
Proportion of Female Students	80.0% (78.0%–90.0%)	88.0% (83.5%–92.5%)	.20
Initial Simulation (F) Increase	25.0% (15.5%–25.0%)	34.0% (20.0%–50.0%)	.07
Initial Virtual Simulation Increase	20.0% (15.0%–35.0%)	9.0% (0%–19.5%)	.04
Initial Online Lecture Increase	65.5% (15.0%–92.0%)	80.0% (45.0%–100%)	.27
Mean Simulation (F) Increase	9.7% (1.0%–26.9%)	12.2% (2.5%–20.0%)	.41
Mean Virtual Simulation Increase	15.9% (3.2%–36.7%)	21.7% (9.5%–33.3%)	.23
Mean Online Lecture Increase	65.0% (30.0%–75.0%)	42.5% (36.6%–75.0%)	.48
Total Clinical Courses Changed	41.7% (20.0%–60.8%)	50.0% (28.6%–66.7%)	.26
Total Didactic Courses Changed	53.9% (37.5%–78.0%)	33.3% (25.0%–80.0%)	.20

Note. ADN = associate degree in nursing; BSN = bachelor of science in nursing; F = face-to-face simulation. Observed *n* varies across reported or tracked faculty characteristics. Data are reported as *n* (%) except for continuous variables, which are expressed as medians (interquartile ranges).
aIn-program test scores include Assessment Technology Institute, Health Education Systems, Inc., and Kaplan examinations.

Consistent across other reported outcomes, programs that fell short of the 80% first-time NCLEX-RN passing threshold often relied on higher levels of virtual simulation (*p* = .04). By contrast, there was a trend toward programs that met or surpassed the 80% first-time NCLEX-RN passing threshold, often relying on higher levels of more established face-to-face simulation methods (*p* = .07). Shifts to increased use of both face-to-face and virtual simulation were most pronounced during the 2020–2021 academic year (40.4% vs. 27.2%, Figure 6). Often, the number of clinical hours a program required provided critical context for interpreting the potential impact of these types of trends, as it did in the National Simulation Study (Hayden et al., 2014). Here again, despite the limitations of a smaller institutional sample, a trend emerged regarding the number of required clinical hours as well. Participating programs that required fewer clinical hours (*Mdn*: 630, *IQR*: 150–675) tended to document lower first-time NCLEX-RN pass rates compared to programs that required more clinical hours (*Mdn*: 697, *IQR*: 550–750, *p* = .07).

FIGURE 6

Proportion of Clinical Experiences Completed Through Simulation by Term
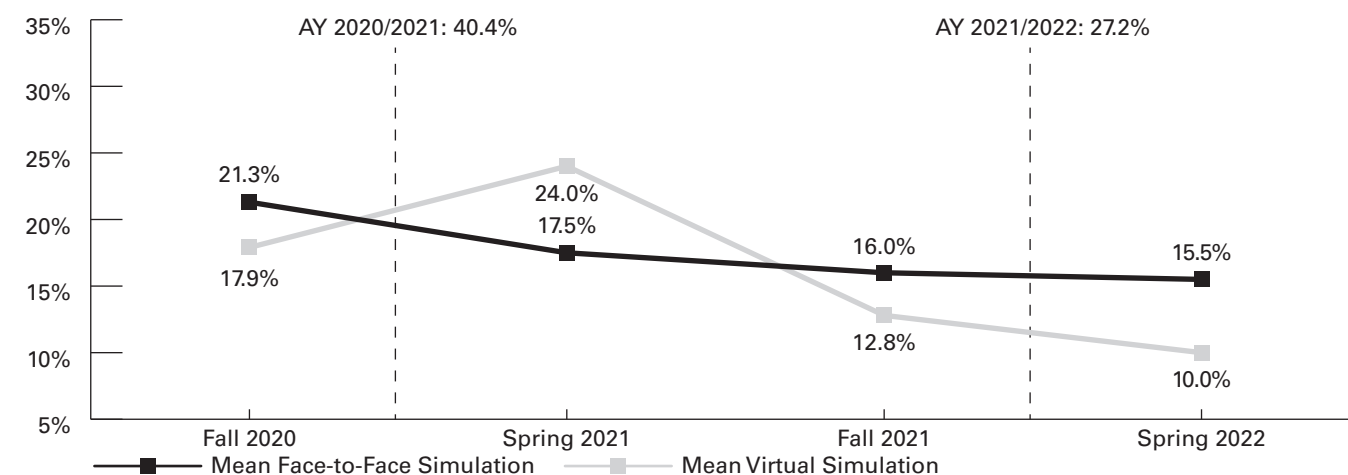
Note. AY = academic year.

Discussion

There was little variation in within-program standardized examination scores by aggregate institutional characteristics. Programs that reported pronounced increases in their utilization of virtual simulation, particularly those that indicated no additional institutional resources to support such a transition, documented significant declines in their ATI, HESI, and Kaplan results. NCLEX-RN results were consistent, with programs that fell short of the 80% first-time NCLEX-RN passing threshold often relying on higher levels of virtual simulation. By contrast, programs that increased their utilization of more established face-to-face simulation methods documented higher ATI, HESI, and Kaplan results and, more often than not, met or surpassed the 80% first-time NCLEX-RN passing threshold. Similarly, programs that reported the delivery formats for a larger proportion of their lecture-based courses had been updated and moved online due to the pandemic were more likely to report lower NCLEX-RN results, albeit still well above the national average.

Limitations

Despite WIRB approval and documented student consent, many programs in our sample opted not to share nursing students' within-program standardized test information due to concerns regarding participant privacy and ambiguity over institutional policy. This, along with issues of attrition over the 2-year study period, resulted in standardized examination scores only being available for approximately half the consented student sample (within-program scores $n = 331$). Thus, this section provides only a partial snapshot of students' examination performance and results should be interpreted with caution. Furthermore, given student study participants' superior NCLEX-RN results (compared with overall NCLEX-RN results reported by NCSBN), it's likely within-program scores are artificially deflated due to missing data. All findings of this analysis are correlational and do not support causal inference.

Conclusion

Despite the limitations and availability of standardized examination measures, several interesting patterns emerged that confirmed student and faculty self-report data. Namely, programs' increasing reliance on virtual simulation and online lecture delivery after the onset of the pandemic correlated with lower student performance. The inverse was true of increased use of more established face-to-face simulation methods. Importantly, this is likely due to context. The simulation thresholds put forth by NCSBN (Alexander et al., 2015) were rarely met and almost never exceeded in our institutional sample. Furthermore, the median number of required clinical hours in the set was 681 (*IQR*: 584–750). Both elements provide critical context for interpreting the potential impact of the utilization trends observed in this study, as they did in the National Simulation Study (Hayden et al., 2014). Adherence to established evidence-based guidelines on face-to-face simulation use appears to have resulted in consistently strong student outcomes.

New Graduates' Early Career Outcomes

May 2022 marked the formal completion of the within-program data collection phase of the longitudinal study. This part of Phase Three focused on early career outcomes among the student participants in this study.

Methods

In May 2022, prior to graduation, exit information, including alternate contact information for all student study participants, was solicited to supplement the program email listserv. Then, at intervals of 3 and 6 months after graduation, new graduates were asked to provide details on their postgraduation experiences. For new graduates who were employed at one or more of these intervals, NCSBN research staff requested they submit responses to the NGNPS. In addition, new graduates were given an anonymous link to forward to a manager or direct supervisor familiar with their work to provide an additional evaluation. To encourage participation, a monetary incentive was offered for each valid submission, as well as a dual monetary incentive for both the manager and new graduate for each complete managerial submission. All surveys were administered using Qualtrics. The 3- and 6-month surveys launched on August 15, 2022, and November 15, 2022, respectively. Both remained open for 6 weeks, with three regularly scheduled weekly reminders. The managerial surveys remained open throughout the final 3 months of the early career data-tracking window, accessible with an anonymous link provided to participating new graduates.

Survey Tools

The NGNPS (Appendix D) was developed by the Nursing Executive Center of the Advisory Board Company. It consists of 36 items that assess clinical knowledge, technical skills, critical thinking, communication, professionalism, and management of responsibilities on a six-point Likert scale, where 1 = lowest rating and 6 = highest rating (Berkow et al., 2008). The instrument demonstrated good internal consistency, with a Cronbach's coefficient alpha of 0.97, and the split-half reliability was 0.92 (Hayden et al., 2014). Evidence of convergent and discriminant validity was found.

As supplement, the Critical Thinking Diagnostic component of the survey instrument further assesses nurses' critical-thinking ability using the same 6-point Likert scale across five items in each of the following areas: (a) problem recognition, (b) clinical decision making, and (c) prioritization. As before, the Critical Thinking Diagnostic also demonstrated good internal consistency, with a Cronbach's coefficient alpha of 0.98 (Hayden et al., 2014). Evidence of convergent and discriminant validity was also found.

Variable Coding

Select independent variables were recoded based on their underlying values to facilitate group analysis. Most variable coding outlined in previous sections remained consistent. Coding related to programs' changes to their course delivery formats from the prior section was again referenced. For this portion of the analysis, the only new variable coded was the number of years a student's academic program had operated, which was recast as a binary predictor using the median value from the underlying distribution as a cut-point. Specifically, a program's years in operation were defined based on values less than and greater than or equal to 54 years (e.g., the observed median value in the sample).

For the outcomes, scores were summed for each of the six domains of the NGNPS and the three domains of the Critical Thinking Diagnostic scale. For the NGNPS, each of the 6 domains (clinical knowledge, technical skills, critical thinking, communication, professionalism, and management of responsibilities) have 6 individual items. Thus, scores were summed by domain and then divided by six to aid interpretation using the original Likert scale of 1 to 6 (1 = lowest rating, 6 = highest rating). For the Critical Thinking Diagnostic scale, the three domains (problem recognition, decision making, and prioritization) each had five individual items. Thus, for these domains, summed scores were divided by five to again aid interpretation using the original Likert scale.

Data Analysis

New graduate and institutional descriptive data are reported at the practitioner level. Summary results include frequencies and proportions for all categorical variables, while continuous variables are expressed as means and standard deviations or medians and IQRs, as appropriate. All model-based results are expressed as means and standard errors. Due to the longitudinal nature of the data tracking, GEE models were used to assess the significance of observed trends to account for repeated measures. All analyses were conducted using SAS version 9.4, and $p \leq .05$ was considered statistically significant.

Results

New Graduate Sample

The new graduate respondent profile strongly aligned with the overall institutional and student participant profiles (Table 12), confirming relative continuity throughout the study on broad sample characteristics. Overall, 187 unique new graduates participated in the postgraduation surveys for a total of 301 responses. Of the 187 graduates, 130 (69.5%) indicated they passed their NCLEX-RN at some point during the early career tracking, and 120 (64.2%) reported being employed. For the remainder of the results, the denominator is the 120 employed nurses. The mean age of nurses who submitted early career responses was approximately 26 (SD: 7.3) years. Most nurses self-identified as female (n = 107, 92.2%), non-Hispanic (n = 98, 84.5%), and White (n = 92, 79.3%). Nearly one-third of participating nurses (n = 39, 33.6%) indicated they were Pell Grant recipients. More participants were graduates from BSN programs (n = 70, 59.8%) than from ADN programs (n = 47, 40.2%). After graduation, there was a pronounced geographic

shift among study participants, with a plurality of nurses indicating they attended nursing school in an urban area ($n = 50$, 41.7%) but nearly three-quarters ($n = 81$, 71.1%) identifying their primary workplace setting as urban. Nearly all respondents indicated they worked as an RN at a hospital/medical center ($n = 107$, 93.9%).

TABLE 12

Summary of Employed New Graduates (*N* = 120)

Characteristics	n (%)[a]	Characteristics	n (%)[a]
Age, y, *M* (*SD*)	25.7 (7.3)	Work Region	
Sex		Urban	81 (71.1%)
Female	107 (92.2%)	Suburban	23 (20.2%)
Male	9 (7.8%)	Rural	10 (8.8%)
Hispanic		Institution Type	
Hispanic	18 (15.5%)	Hospital/medical center	107 (93.9%)
Non-Hispanic	98 (84.5%)	Long-term care facility	3 (2.6%)
Race		Community-based or ambulatory	4 (3.5%)
White	92 (79.3%)	Transition to Practice Residency	
Asian	12 (10.38%)	Yes	91 (82.0%)
Black	2 (1.7%)	No	20 (18.0%)
Other	10 (8.7%)	Mean Work Hours, *M* (*SD*)	37.0 (6.1)
Pell Grant Status		Mean Shift Hours, *M* (*SD*)	11.7 (1.5)
Yes	39 (33.6%)	Work Schedule	
No	77 (66.4%)	Day (7 a.m.–3 p.m.)	7 (6.3%)
Program Type		Day (9 a.m.–5 p.m.)	6 (5.4%)
BSN	70 (59.8%)	Day (12-h shift)	34 (30.6%)
ADN	47 (40.2%)	Evening (3 p.m.–11 p.m.)	1 (0.9%)
School Region		Night (11 p.m.–7 a.m.)	45 (40.5%)
Urban	50 (41.7%)	Night (12-h shift)	18 (16.2%)
Suburban	36 (30.0%)	Mean Patient Load, *Mdn* (*IQR*)	4 (2–5)
Rural	27 (22.5%)	Patient Difficulty	
Other	7 (5.8%)	Not challenging enough	2 (1.8%)
		Just right	87 (78.4%)
		Too challenging or difficult	22 (19.8%)

Note. ADN = associated degree in nursing; BSN = bachelor of science in nursing; IQR = interquartile range. Observed *n* varies across reported or tracked student characteristics.
[a] Data reported as n (%) unless otherwise noted.

More than three-quarters of new nurses ($n = 91$, 82.0%) reported they had or were participating in a transition to practice residency. Similarly, most nurses worked 12-hour shifts ($n = 79$, 71.2%), with a plurality indicating employment on an 8-hour night shift ($n = 45$, 40.5%). Correspondingly, nurses reported working a mean of 37 (SD: 6.1) hours per week and approximately 12 (M: 11.7, SD: 1.5) hours per shift. While the median patient load for nurses in critical care units was two ($n = 46$, IQR: 2–4), the median inpatient load for most other inpatient nurses (e.g., medical-surgical, labor and delivery, etc.) was four ($n = 101$, IQR: 2–4). However, these numbers may be influenced by the ongoing nature of most new graduates' transition to practice residency (see details in the following paragraphs). The median patient load for the three RNs who reported working in long-term care facilities was 22 (range: 16–24). Most nurses reported the difficulty level of their patients was "just right" ($n = 87$, 78.4%), but a sizable proportion indicated "too challenging or difficult" ($n = 22$, 19.8%).

Survey Findings

An assessment of the NGNPS results by nurse characteristics revealed very consistent outcomes across tracked demographic criteria (Table 13). Whether or not respondents participated in a transition-to-practice (TTP) residency program had little bearing on their self-reported ratings across clinical knowledge, technical skills, critical thinking, communication, professionalism, and management of responsibilities (all $p > .05$). However, by the 6-month survey administration, only five of the 91 nurses (5.6%) had completed their residency. Similarly, respondents' sex, ethnicity, and Pell Grant status did not inform on any of their performance ratings (all $p > .05$). From the first survey wave (e.g., 3 months) to the second survey wave (e.g., 6 months), there were observed gains for critical thinking, communication, and management of responsibilities, but none reached the level of statistical significance (all $p > .05$). By contrast,

there were significant gains in technical skills reported by participants over the 6 months (3-month *M*: 4.81, *SE*: 0.08 vs. 6-month *M*: 4.99, *SE*: 0.07, *p* = .02). Performance scores were comparable between the two time points for the remaining two domains of clinical knowledge and professionalism.

The most pronounced and consistent differences that emerged were by participant race. For five of the six NGNPS domains, non-White respondents self-reported significantly lower performance scores. For clinical knowledge, respondents who self-identified as non-White reported a mean performance score of 3.67 (*SE*: 0.14), compared to 3.95 (*SE*: 0.05) for their White counterparts (*p* = .01). Meaning, non-White respondents were less likely to rate their proficiency with the underlying skills that comprise this domain as highly as White nurses. Similar patterns emerged for technical skills (*M* difference: -0.48, *p* = .01), critical thinking (*M* difference: -0.52, *p* < .01), communication (*M* difference: -0.47, *p* < .01), and management of responsibilities (*M* difference: -0.69, *p* = .03). Even for the sixth and final domain, professionalism, there was an observed mean difference of -0.27, with non-White respondents reporting a mean of 4.93 (*SE*: 0.16) compared to 5.20 (*SE*: 0.05) for White participants.

TABLE 13

New Nurse Graduate Performance Survey Results by Nurse Characteristics

Nurse Characteristics	Clinical Knowledge	Technical Skills	Critical Thinking	Communication	Professionalism	Management of Responsibilities
Survey Wave						
3-month	3.90 (0.06)	4.81 (0.08)	4.73 (0.08)	4.72 (0.08)	5.14 (0.07)	4.66 (0.08)
6-month	3.88 (0.06)	4.99 (0.07)*	4.78 (0.07)	4.85 (0.06)	5.14 (0.06)	4.71 (0.08)
TTP Residency						
Yes	3.88 (0.05)	4.95 (0.11)	4.77 (0.15)	4.86 (0.15)	5.14 (0.09)	4.76 (0.17)
No	3.93 (0.10)	4.88 (0.08)	4.75 (0.07)	4.76 (0.07)	5.14 (0.06)	4.67 (0.08)
Age						
<21 y	3.80 (0.09)	4.84 (0.13)	4.71 (0.13)	4.74 (0.10)	5.10 (0.09)	4.59 (0.14)
≥21 y	3.95 (0.06)	4.93 (0.07)	4.79 (0.07)	4.81 (0.08)	5.17 (0.07)	4.74 (0.07)
Sex						
Female	3.90 (0.05)	4.92 (0.07)	4.78 (0.07)	4.79 (0.07)	5.17 (0.05)	4.71 (0.07)
Male	3.82 (0.23)	4.57 (0.34)	4.58 (0.26)	4.73 (0.25)	4.86 (0.27)	4.46 (0.28)
Hispanic						
Hispanic	3.90 (0.10)	4.98 (0.16)	4.79 (0.13)	4.69 (0,22)	5.28 (0.14)	4.73 (0.15)
Non-Hispanic	3.89 (0.06)	4.88 (0.07)	4.77 (0.07)	4.80 (0.07)	5.12 (0.06)	4.69 (0.08)
Race						
White	3.95 (0.05)	4.99 (0.06)	4.87 (0.06)	4.88 (0.06)	5.20 (0.05)	4.79 (0.06)
Non-White	3.67 (0.14)*	4.51 (0.18)*	4.35 (0.16)**	4.41 (0.17)**	4.93 (0.16)	4.30 (0.19)*
Pell Grant Status						
Yes	3.90 (0.10)	4.81 (0.12)	4.68 (0.11)	4.74 (0.12)	5.13 (0.10)	4.7 (0.12)
No	3.89 (0.06)	4.94 (0.08)	4.82 (0.08)	481 (0.07)	5.5 (0.06)	4.69 (0.08)

Note. Observed *n* varies across reported or tracked faculty characteristics. All estimates are presented as mean (standard error).
* *p* ≤ .05.
** *p* ≤ .01.

A closer examination of career performance metrics revealed that the widespread disruptions to higher education wrought by the pandemic impacted nurses' self-reported sense of proficiency across several domains (Table 14). Changes to program course delivery formats drove most observed differences. For instance, a pronounced reliance on face-to-face simulation in fall 2020 led to lower mean ratings on technical skills (*M* difference: -0.28), communication (*M* difference: -0.33), and management of responsibilities (*M* difference: -0.30) across early career nurses (all *p* < .05). This effect dissipated over the 2 years, though, as no significant effects were observed by mean face-to-face simulation use from fall 2020 to spring 2022 (all *p* > .05).

TABLE 14

New Nurse Graduate Performance Survey Results by Program Characteristics

Program Characteristics	Clinical Knowledge	Technical Skills	Critical Thinking	Communication	Professionalism	Management of Responsibilities
Program Type						
BSN	3.84 (0.07)	4.86 (0.09)	4.66 (0.09)	4.72 (0.08)	5.10 (0.07)	4.59 (0.09)
ADN	3.97 (0.08)	4.95 (0.09)	4.90 (0.09)	4.88 (0.11)	5.19 (0.08)	4.84 (0.09)
School Region						
Urban	3.87 (0.09)	4.80 (0.13)	4.66 (0.12)	4.64 (0.10)	5.03 (0.09)	4.52 (0.13)
Suburban	3.90 (0.08)	4.92 (0.10)	4.74 (0.10)	4.79 (0.10)	5.19 (0.08)	4.71 (0.11)
Rural	3.92 (0.09)	5.02 (0.08)	4.95 (0.09)	5.02 (0.11)	5.29 (0.09)	4.96 (0.08)**
Years in Operation						
<54 y	3.87 (0.07)	4.88 (0.09)	4.79 (0.08)	4.74 (0.08)	5.13 (0.07)	4.67 (0.09)
≥54 y	3.93 (0.07)	4.93 (0.07)	4.68 (0.08)	4.87 (0.08)	5.17 (0.07)	4.72 (0.10)
Initial Simulation (F) Increase						
<15%	4.01 (0.08)	5.06 (0.08)	4.86 (0.09)	4.98 (0.09)	5.27 (0.08)	4.86 (0.09)
≥15%	3.82 (0.07)	4.78 (0.09)*	4.69 (0.09)	4.65 (0.08)**	5.05 (0.07)*	4.56 (0.10)*
Initial Virtual Simulation Increase						
<14%	3.86 (0.06)	4.81 (0.10)	4.68 (0.10)	4.78 (0.09)	5.12 (0.08)	4.63 (0.11)
≥14%	3.92 (0.06)	4.98 (0.08)	4.84 (0.08)	4.79 (0.09)	5.16 (0.06)	4.73 (0.09)
Initial Online Lecture Increase						
<61%	3.86 (0.07)	4.90 (0.08)	4.76 (0.09)	4.81 (0.07)	5.13 (0.06)	4.67 (0.09)
≥61%	3.95 (0.08)	4.90 (0.10)	4.76 (0.10)	4.74 (0.11)	5.17 (0.09)	4.70 (0.11)
Mean Simulation (F) Increase						
<12.5%	3.84 (0.07)	5.01 (0.08)	4.83 (0.09)	4.84 (0.09)	5.17 (0.07)	4.76 (0.10)
≥12.5%	3.92 (0.09)	4.81 (0.12)	4.75 (0.10)	4.70 (0.10)	5.16 (0.08)	4.63 (0.12)
Mean Virtual Simulation Increase						
<20%	3.83 (0.09)	5.00 (0.08)	4.90 (0.08)	4.83 (0.10)	5.22 (0.07)	4.85 (0.08)
≥20%	3.93 (0.07)	4.79 (0.12)	4.65 (0.12)*	4.69 (0.09)	5.09 (0.08)	4.51 (0.13)*
Mean Online Lecture Increase						
<46.25%	3.91 (0.07)	5.05 (0.07)	4.89 (0.07)	4.99 (0.08)	5.27 (0.07)	4.88 (0.07)
≥46.25%	3.87 (0.09)	4.71 (0.12)*	4.70 (0.11)	4.66 (0.10)*	5.07 (0.09)	4.54 (0.12)*
Total Clinical Courses D						
<50%	3.91 (0.08)	5.08 (0.08)	4.83 (0.11)	4.94 (0.09)	5.24 (0.07)	4.78 (0.11)
≥50%	3.87 (0.07)	4.81 (0.09)*	4.74 (0.08)	4.70 (0.08)*	5.10 (0.07)	4.64 (0.09)
Total Didactic Courses D						
<37.5%	4.00 (0.07)	5.07 (0.08)	4.91 (0.09)	4.94 (0.08)	5.26 (0.07)	4.82 (0.09)
≥37.5%	3.79 (0.08)*	4.72 (0.11)**	4.64 (0.10)*	4.66 (0.09)*	5.02 (0.08)*	4.57 (0.11)

Note. ADN = associate degree in nursing; BSN = bachelor of science in nursing; F = face-to-face simulation; D = Delta/Change. Observed *n* varies across reported or tracked faculty characteristics. All estimates are presented as mean (standard error).

* $p \leq .05$.

** $p \leq .01$.

By contrast, early (e.g., fall 2020) adoption of virtual simulation did not drive differences across the six performance domains, but mean virtual simulation use over the 2-year reporting window did have an effect. Sustained and high uptake of virtual simulation over the 2-year period led to lower mean ratings within the critical thinking (*M* difference: -0.25) and management of responsibilities (*M* difference: -0.34, both $p < .05$) domains. Similar patterns emerged at higher thresholds of online delivery of lecture material from fall 2020 to spring 2022. Specifically, prolonged use of higher proportions of online lectures led to lower mean ratings on technical skills (*M* difference: -0.34), communication (*M* difference: -0.33), and management of responsibilities (*M* difference: -0.34, all $p < .05$).

An issue of scale, as measured by the overall proportion of clinical and didactic courses affected, also emerged. For instance, graduates of programs that reported increased face-to-face simulation or virtual simulation use for more than 50% of the clinical rotations were more likely to report lower proficiency within the technical skills (*M* difference: -0.27) and communication (*M* difference: -0.24, both $p < .05$) domains. In addition, graduates of programs that reported increased use of online lecturing, specifically for more than 37.5% of their didactic courses, were more likely to report lower perceived proficiency for their clinical knowledge (*M* differ-

ence: -0.21), technical skills (*M* difference: -0.35), critical thinking (*M* difference: -0.27), communication (*M* difference: -0.28), and professionalism (*M* difference: -0.24, all $p < .05$).

The results of the New Nurse Graduate Critical Thinking Diagnostic Survey were also crosstabulated by select nurse and institutional characteristics. As with the nurse performance metrics, the diagnostic results were largely consistent across tracked demographic criteria (Table 15). Neither survey timing nor TTP residency participation informed on nurses' perceived diagnostic proficiency (both $p > .05$). Respondents' sex, ethnicity, and Pell Grant status similarly did not correlate with their self-reported diagnostic ratings. As with performance outcomes, non-White respondents were less likely to rate their proficiency with decision-making as highly as White graduates (*M* difference: -0.29, $p = .01$).

TABLE 15

New Nurse Graduate Critical Thinking Diagnostic Survey Results by Nurse Characteristics

Nurse Characteristics	Problem Recognition	Clinical Decision Making	Prioritization
Survey Wave			
3-mo	4.65 (0.08)	4.93 (0.06)	4.69 (0.08)
6-mo	4.62 (0.08)	4.89 (0.07)	4.78 (0.06)
TTP Residency			
Yes	4.65 (0.08)	4.92 (0.10)	4.70 (0.07)
No	4.61 (0.17)	4.90 (0.07)	4.87 (0.13)
Age			
<21 y	4.54 (0.13)	4.83 (0.10)	4.71 (0.11)
≥21 y	4.69 (0.09)	4.96 (0.07)	4.76 (0.08)
Sex			
Female	4.63 (0.08)	4.91 (0.06)	4.73 (0.07)
Male	4.67 (0.22)	4.97 (0.11)	4.90 (0.10)
Hispanic			
Hispanic	4.58 (0.15)	4.81 (0.16)	4.71 (0.14)
Non-Hispanic	4.65 (0.08)	4.93 (0.06)	4.75 (0.07)
Race			
White	4.66 (0.08)	4.97 (0.06)	4.77 (0.07)
Non-White	4.55 (0.16)	4.68 (0.11)*	4.64 (0.13)
Pell Grant Status			
Yes	4.67 (0.11)	4.87 (0.09)	4.73 (0.12)
No	4.62 (0.09)	4.94 (0.07)	4.75 (0.08)

Note. TTP = transition to practice. Observed *n* varies across reported or tracked faculty characteristics. All estimates are presented as mean (standard error).

* $p \leq .05$.

Unlike career performance metrics, clinical transitions to simulation and remote learning did not appear to impact nurses' self-reported sense of proficiency across the three critical thinking diagnostic domains of recognition, decision making, and prioritization (Table 16). There were no significant correlations between students' diagnostic skills and programs' pronounced reliance on simulation and online learning in fall 2020 (both $p > .05$). Similarly, prelicensure RN programs' sustained use of distance learning strategies throughout the 2-year data collection period did not drive meaningful differences in nurses' self-reported diagnostic proficiency (all $p > .05$). Interestingly, though, graduates of BSN programs consistently reported lower mean ratings than graduates of ADN programs on problem recognition (*M* difference: -0.-27), decision making (*M* difference: -0.24), and prioritization (*M* difference: -0.26, all $p < .05$).

TABLE 16

New Nurse Graduate Critical Thinking Diagnostic Survey Results by Program Characteristics

Program Characteristics	Problem Recognition	Decision Making	Prioritization
Program Type			
BSN	4.55 (0.10)	4.82 (0.07)	4.66 (0.07)
ADN	4.82 (0.09)*	5.06 (0.09)*	4.92 (0.10)*
School region			
Urban	4.60 (0.12)	4.78 (0.10)	4.64 (0.10)
Suburban	4.59 (0.13)	4.99 (0.10)	4.75 (0.12)
Rural	4.79 (0.11)	5.02 (0.09)	4.86 (0.14)
Years in Operation			
<54 y	4.58 (0.10)	4.93 (0.08)	4.75 (0.08)
≥54 y	4.77 (0.08)	4.85 (0.07)	4.71 (0.11)
Initial Simulation (F) Increase			
<15%	4.68 (0.10)	5.01 (0.08)	4.81 (0.10)
≥15%	4.62 (0.10)	4.84 (0.08)	4.69 (0.08)
Initial Virtual Simulation Increase			
<14%	4.73 (0.07)	4.90 (0.09)	4.73 (0.09)
≥14%	4.55 (0.12)	4.92 (0.07)	4.74 (0.09)
Initial Online Lecture Increase			
<61%	4.63 (0.10)	4.92 (0.07)	4.77 (0.08)
≥61%	4.66 (0.08)	4.90 (0.09)	4.69 (0.11)
Mean Simulation (F) Increase			
<12.5%	4.63 (0.10)	4.89 (0.07)	4.81 (0.08)
≥12.5%	4.63 (0.12)	4.93 (0.10)	4.73 (0.12)
Mean Virtual Simulation Increase			
<20%	4.51 (0.14)	4.83 (0.09)	4.64 (0.12)
≥20%	4.73 (0.08)	4.97 (0.08)	4.87 (0.09)
Mean Online Lecture Increase			
<46.25%	4.71 (0.12)	5.02 (0.08)	4.89 (0.08)
≥46.25%	4.56 (0.12)	4.89 (0.10)	4.67 (0.12)
Total Clinical Courses D			
<50%	4.72 (0.10)	4.93 (0.09)	4.77 (0.09)
≥50%	4.59 (0.10)	4.90 (0.08)	4.74 (0.09)
Total Didactic Courses D			
<37.5%	4.69 (0.09)	5.00 (0.07)	4.79 (0.10)
≥37.5%	4.61 (0.12)	4.84 (0.09)	4.72 (0.09)

Note. ADN = associate degree in nursing; BSN = bachelor of science in nursing; F = face-to-face simulation; D = Delta/Change. Observed *n* varies across reported or tracked faculty characteristics. All estimates are presented as mean (standard error).

* $p ≤ .05$.

Discussion

Early career performance and diagnostic critical thinking metrics revealed that the widespread disruptions to higher education wrought by the COVID-19 pandemic impacted nurses' self-reported sense of proficiency across several domains. Changes to programs' course delivery formats drove most observed differences, but differences based on the type, magnitude, and timing of the changes emerged. For instance, a pronounced reliance on face-to-face simulation in fall 2020 led to lower mean ratings across select domains, but these effects dissipated over the 2-year period. Conversely, early (e.g., fall 2020) adoption of virtual simulation did not drive meaningful differences across nurses' self-reported proficiencies, but programs' sustained reliance on virtual simulation and online lecturing over the 2-year reporting window did. In both clinical and didactic settings, an issue of scale emerged. Nurses who graduated from programs that reported higher proportions of courses with updated and revised delivery formats frequently reported lower perceived performance and diagnostic critical thinking proficiencies.

In only one area did nurses' demographic characteristics inform on any of their performance or diagnostic ratings consistently: participant race. Nurses who identified as non-White reported lower proficiencies across six of the nine tracked performance and diagnostic critical thinking domains. Minority nurses were less likely to rate themselves as proficient with the underlying skills that comprise the domains of clinical knowledge, technical skills, critical thinking, communication, management of responsibilities, and decision making. For select domains, graduates of BSN programs reported lower mean ratings as well. Only for the technical skills domain did recent graduates perceive a significant increase in their proficiency over the 6-month period.

Limitations

Since this was a voluntary opt-in research study, the new graduates who opted to participate may not provide an entirely representative snapshot of the outcomes at the participating prelicensure RN programs. Existing literature and the results of this study confirm that the lived experience of the COVID-19 pandemic is not universal but rather dependent on the personal, academic, and professional stressors it introduces. In addition, a detailed breakdown by new nurse graduate race is provided in the descriptive summary, but the low response n across non-White racial categories required that the variable be collapsed to a simpler White v. Non-White comparison for modeling. Finally, while new graduate participation in this study was robust, managerial feedback was unfortunately very limited and thus not included in the final analysis. It is unclear why tested outreach strategies that had an established track record of success previously failed to gain traction in the present study. Additional research on managers' perceptions of new graduates' performance and diagnostic skills is necessary. Finally, the findings of this analysis are correlational and do not support causal inference.

Conclusion

Early career survey results confirm a disproportionate impact of course delivery format changes on domains related to new graduate performance. These include clinical knowledge, technical skills, critical thinking, communication, professionalism, and management of responsibilities. In nearly all instances, the early career outcomes align with and illustrate the real-world impact of the deficiencies identified by students and faculty throughout their academic training and brought about by the pandemic. Unlike career performance metrics, clinical transitions to simulation and remote learning did not appear to have as pronounced an impact on nurses' self-reported sense of proficiency across the three critical thinking diagnostic domains of problem recognition, clinical decision making, and prioritization. While some of the additional differences observed in the early career results (e.g., program type) tie back to course delivery format, one area of additional concern did emerge in the findings: race.

In part, the differences that emerged by participant race can be attributed to other documented patterns. For instance, non-White nurses were significantly more likely to attend an urban-based program (27.8%) compared to a suburban (16.3%) or rural (11.6%) institution. As documented prior, these institutions were significantly more likely to rely on remote and simulation-based learning environments. Perhaps this was due to both the severity of the COVID-19 infection rates in those areas as well as the restrictions put in place to address them. Nonetheless, a few other criteria that displayed similar degrees of overlap with changes to course delivery format earlier, such as region, program type, etc., did not emerge in this section. This suggests that the perceived deficiencies self-reported by non-White nurses are likely more nuanced and warrant further investigation.

Phase Four: Focus Group Outcomes

The fourth and final phase of this study focused on participants' lived experiences during the pandemic. This qualitative research revealed the untold experiences of faculty, students, and administrators and the lessons learned during this crisis. This portion of this longitudinal, mixed methods study illuminates the transient and everlasting impacts the pandemic has made on educating students for years to come to include those humanistic factors vital to teaching and learning in nursing education.

Methods

The qualitative section of this multi-site national study incorporated a hermeneutic phenomenological methodological approach. The purpose of this qualitative phase was to address the following research question: *What was the experience of faculty, students, and administrators in nursing education during the COVID-19 pandemic?* Phenomenology was used in this study to emphasize the phenomenon (ie, the pandemic) as it presents through the lived experiences of the participants (Dibley et al., 2020; van Manen, 1990). Through hermeneutic phenomenology, multiple interpretations may be derived from the experience, and the researcher thus remains open to what may be revealed through interpretation of the text.

Sample and Sessions

Focus groups were created based on a purposive sample selected from the faculty, students, and administrators who agreed to participate in the previous phases of this longitudinal study beginning in August 2020. Approval was obtained from the WIRB and

participants were recruited via email with an incentive of $100 for participation. The qualitative focus group sessions were conducted in June through August 2022. The participants were placed in discussion groups distinctly associated with their role as faculty (4 groups; n = 26), students (3 groups; n = 22), or administrators (2 groups; n = 16). The group sizes ranged from 5–9 participants per discussion. The focus group approach allowed for the creation of dialogue and collaboration with others in phenomenological research (Bradbury-Jones et al., 2009; Côté-Arsenault & Morrison-Beedy, 2001; Halling et al., 1994; Spence, 2005) and added richness to the social and cultural contexts of individuals with similar experiences (Montague et al., 2020). The individual voice of the participant was preserved by the researcher through an open approach by inviting every participant to share their experiences.

The focus groups were facilitated using a web-based, virtual modality (e.g., Zoom). Participants were placed in a virtual waiting room until the research group confirmed each participant was permitted to join the discussion. Participants could choose whether to use the camera and/or chat feature, if desired, and the audio from each session was recorded. The semi-structured interview included the overarching question about the nursing education experience during the COVID-19 pandemic with prompts regarding virtual and online learning, simulation, personal and professional challenges, and open time for anything participants thought was important to share. Each group discussion lasted 60–90 minutes. After the interview, the audio recording was transcribed, and pseudonyms were provided for the participant names to ensure anonymity.

Data Analysis

This hermeneutic phenomenological approach focused on the experiences of faculty, students, and administrators during the COVID-19 pandemic. The researcher acknowledges pre-understandings of this study were not separated but rather brought forth to reduce interpretive bias. Participant text analysis was underpinned by the philosophical works of Heidegger and Gadamer. The hermeneutic interpretation of a phenomenon is shaped with multiple possibilities and made explicit through thematic analysis while engaging within the hermeneutic circle. Gadamer postulated the hermeneutic circle involves an interplay with the participant text and prior knowledge to uncover meanings of the lived experience (Gadamer, 2004; Laverty, 2003). This interplay with participant text was further delineated in coordination with the NCSBN research team using a 5-step approach to data analysis with central tenets of Gadamer's work as described by Alsaigh and Coyne (2021).

The analysis of the text was coded using NVivo. The data were shared with the NCSBN research team through a secure cloud-based account where de-identified interpretations of the text were uploaded and discussed at regular intervals during each step of the data analysis for this phase of the study. Each member of the NCSBN research team participated in the reading of texts and discussion of possible coding and interpretations as led and provided by the lead qualitative researcher. The steps to interpretation are described in Table 17 following a Gadamerian framework (Alsaigh & Coyne, 2021).

TABLE 17

5-Step Process to Focus Group Data Analysis

Step 1: Research Question	Determined prior to data collection
Step 2: Pre-understandings	Researcher team's pre-understandings were identified through current knowledge and preconceived notions
Step 3: Gain Understanding	Dialogue conducted with the participants to gain understanding; researchers remained open to possibilities
Step 4: Transcribing and Analyzing	**Immersion** – Recorded interviews were transcribed and reviewed twice for accuracy; participants were de-identified (pseudonyms were used and all identifying information was removed from the transcription); dwelling with the data and initial notes of interpretations were discussed with the research team while remaining open to multiple perspectives **Understanding** – Codes were developed in NVivo based on participant text; research team provided input into the codes **Abstraction** – Codes were merged for all 3 groups (faculty, students, and administrators) and common categories and subthemes were developed through the codes **Themes** – Synthesis of codes and themes was developed through interaction with the text, coding, and the underpinning philosophy to determine the relationship of the "parts to the whole" meaning of the interpretation **Illustration** – Phenomena were linked to the literature **Critique** – Final interpretations were developed and confirmed with the research team
Step 5: Trustworthiness	Trustworthiness was established for credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985)

Source: Adapted from Alsaigh, R., & Coyne, I. (2021). Doing a hermeneutic phenomenology research underpinned by Gadamer's philosophy: A framework to facilitate data analysis. *International Journal of Qualitative Methods*, *20*. https://doi.org/10.1177/16094069211047820

Gadamer (2004) postulated that hermeneutics "is in the play between the traditionary text's strangeness and familiarity to us, between being a historically intended, distanced object and belonging to a tradition. The true locus of hermeneutics is this in-between" (p. 295). The interpretation of the data for this study focused on finding the in-between through the interactions between the transcriptions of the focus groups and communication with the research team (Step 4). Edmund Husserl proposed that to see a phenomenon for what it was, the interpreter needs to *bracket,* or remove, any biases or presuppositions to understand the true essence of a phenomenon (Laverty, 2003; van Manen, 1990). Heidegger (1962) and Gadamer (2004) further expanded on this notion of interpretation by stating the historicality (past history) and background of the interpreter cannot be eliminated (Laverty, 2003), which relates to Step 2 of the data analysis. Heidegger expressed an ontological approach to inquiry and was concerned with what it meant to be human (Dasein) as an inseparable part of being-in-the-world (Dibley et al., 2020; Laverty, 2003). Gadamer (2004) further expanded on the notion of being-in-the-world in that language creates a medium for understanding this experience through interpretive efforts. The interpretation can be described as a fusion of horizons that allows the researcher to see things upon the horizon rather than what is close at hand (Gadamer, 2004). It opens the possibilities for new understandings by furthering the horizon.

Results

The focus group analysis resulted in three themes and six subthemes that were indicative across the faculty, student, and administrator groups. The themes (Table 18) lend to a somewhat, albeit not exclusively, sequential nature of understanding, beginning with the first theme of Humanness of Nursing Education to the development of New Horizons for Healthcare in the end. The interpretive efforts provided insights for the future and lessons learned via theme development.

TABLE 18

Themes and Subthemes

Themes	Subthemes
Humanness of Nursing Education	• Adaptation • Overwhelmed
Fostering Salience Through Turmoil	• Engagement in learning • Power
New Horizons for Healthcare	• Loss of previous ways of knowing • New beginnings

Theme 1: Humanness of Nursing Education

At the time when the world changed in March 2020 due to the COVID-19 pandemic, nursing programs had to quickly pivot to continue educating students. It was a period of many unknowns, and everything traditionally bestowed for educating students was challenged. Faculty were struggling to find new ways of delivering content, students had to adjust to a new learning environment, and administrators were frantically trying to find ways to provide structure and resources for this new way of being. It came to the question, "What was available to be re-purposed for education at a time of extreme uncertainty?" Technology became a central component in the delivery of education.

Adaptation

Participants discussed the various modes of educational delivery such as simulation, web-based lectures, videos, and creative remote teaching strategies (i.e., homemade laboratory materials). They emphasized how adaptation was needed, for example:

> **Shawn (administrator):** *{S}tudents depended so much on the library for their Wi-Fi or at school or {a coffee shop}. When everything shut down, they didn't have a place to study or to get online…. I know students were in the bathroom, literally doing the online lecture portion because they had shared an apartment with the family… they had kids that were school age, so everybody was online, and they didn't have enough Wi-Fi…. Our school had to number one, provide {digital tablets} to our students. Number two, we had to figure out how to give them all hotspots.*

While there were access modalities to be used via the internet, the experience of how to implement this way of teaching and learning was much different than traditionally experienced. Administrators needed to provide costly resources for students and faculty that were not budgeted. Many in-person experiences were eliminated for a time during the COVID-19 pandemic, and faculty needed

to find a way to continue to support students' education. Further expansion of technology was relayed from an administrator, who shared their experience of program adjustment in a rural setting:

> **London (administrator):** *We had one student…who had to drive 150 miles to the campus and sit in their car and do all the work using the internet from the college…. It was very hard to catch cheating in these situations. The numbers actually make it look like it's higher before the pandemic than during, and we really have no way of verifying what's true, so it's been a little frustrating that way.*

It was not only about the cost financially, but the sacrifices students were making to stay in school. In addition, concerns were raised about the lack of security with the new systems, as indicated with the comments shared about potential cheating from many of the participants. This faculty member shared similar experiences of living in a rural area:

> **Ali (faculty):** *I teach in a rural community college and pivoting to online was a huge challenge because I live in an area where many people don't have high speed internet access in their homes…my program was all face to face, so no one on the nursing faculty was accustomed to teaching anything online…. We tried to accommodate all of those accessibility issues by providing laptops and hotspots for them to take home….*

Participants shared how resources were needed to deliver content online and how obstacles to education delivery via the internet were not always overcome. Participants also shared their perspectives regarding why the system was not sufficiently prepared to support rural communities. Life for the participants also became more complicated with adapting to homelife, education, and the uncertainty of the pandemic.

Overwhelmed

The participants' experiences with technological challenges extended to an overwhelming number of factors, as this student shared:

> **Andy (student):** *They had us doing so many different computer programs… and it was just so difficult. I mean, what helped me was those specific teachers that were just really understanding and they {would say}, "Oh, well you missed these assignments online." Well, I didn't even know. It's on this program or this program. "Oh well, that's okay. I'll help you get it through. I'll extend it for you." Just that flexibility, I mean, that's…what got me through.*

The support and flexibility students received was critical to overcoming these seemingly insurmountable challenges. The participants were deeply rooted in the expected ways content was traditionally delivered in nursing education. The change in content delivery during the pandemic brought to fruition how these views of delivering content were transformed. Heidegger (1962) used the term *enframing*, which can be defined as a way to create order and is related to an aspect of teaching and learning experienced by the participants. Enframing can be illuminated through how participants strived to create order out of chaos during the pandemic, similar to a checklist of items. Through enframing, a danger can be explicated, as this student shared:

> **Val (student):** *I don't know if everyone was always well taken care of during nursing school as they would be if we were in person. We couldn't go to office hours to talk to a professor. Sometimes {in the past} I'd sit on a couch with a professor who would just kind of talk things through and I have a little mini meltdown about nursing and it kind of turned to {during the pandemic}, "Okay, if you want questions, it has to be Teams" {internet communication}, which just isn't the same, and so junior year was very hard for me personally and I almost considered dropping out of nursing school because of the emotional toll.*

The overwhelming loss experienced by not being in person highlights the human factors in teaching and learning. Students shared their experiences of becoming a nurse, which was not necessarily only situated around content delivery.

The participants were facing incomprehensible stressors related to the lack of interpersonal interactions, death, and personal illnesses. Students feared the repercussions of not being able to attend clinical experiences and getting out of progression in the program. Participants also shared a tension during this time that resulted in many faculty and administrators quitting and retiring early. One faculty shared what it was like to leave at the time of the pandemic:

> **Rowan (faculty):** *It was just lonely. It was the loneliest retirement. I just slipped away…even though we had Zoom and everybody said goodbye, everything was virtual, even the awards ceremony. I received an award, and it was just so weird.*

The lack of connection and personal interaction was shared by many participants, and technology often did not successfully bridge this divide. When faculty quit, a tremendous shortage was met by the administrators, and they were faced with even more

challenges to re-build a nursing program. Administrators were overwhelmed by the changes and how much the changes impacted the operations of the program.

> **Kelsey (administrator):** *I've been in a faculty for years and have been in this position for now about 13 years. If I would've been an administrator for the first couple of years…I would not still be here because it was that challenging.*

Administrators were tasked with enframing through resource allocation while faculty and students struggled to create order out of the content delivery. This enframing and search for order was desperately needed in a time of change and chaos. Participants were overwhelmed and lacked the human connections to make the multiple adaptations needed surrounding the experience.

Theme 2: Fostering Salience Through Turmoil

A nursing education program is structured to meet program, accreditation, and regulatory standards when preparing a student for their future role as a nurse. Faculty and administrators develop curricula and an environment conducive to didactic, clinical, and laboratory-based learning while maintaining safety for patients and standardized processes as students' progress through a program. When students transition to nurses, a sense of salience has been described as going from both building a knowledge base and learning how to attend to clinical judgments about patient care (Benner et al., 2010). The transition that occurred during the pandemic while in nursing school was a time of great turmoil and the experience was reflected by the participants.

Engagement in Learning

Participants frequently focused on the experience of learning and adapting to the change from in-person to virtual delivery of course content across discussion groups. The change to this new modality of teaching and learning occurred at the start of the pandemic in the United States in March 2020. Students shared how they experienced engagement with this new way of delivering content:

> **Adrian (student):** *{didactic} One thing our professors did was ask us, "What can we do to help more," which is really nice. Everyone was like, "It's boring." That's what we said, so their idea of engagement was… "Okay, now we're going to go into breakout rooms as our engagement activity," and then we were in our breakout rooms and no one really said anything, or we didn't really understand what was going on.*

> *{virtual simulation}{Y}ou always had an idea of what you were supposed to say, and the patients…were very predictable…so you never really had to think on your feet.*

> **Dorian (student):** *I did not retain a single thing. I would do the same thing like, "Oh, I can listen," and maybe do something else, so I feel like I'm not bored because even just listening over online…there was nothing to engage with, and I feel like half of the professors almost read off of their PowerPoints…so then that was extra not engaging…. I never feel like I learned as much as I did my first year in person.*

The learning modalities described above did not create a sense of salience in using clinical judgment. In contrast, the following students described engaging experiences in virtual simulation:

> **Val (student):** *{Faculty} would assign the {mental health} modules and we would complete them and then we came in for a small group discussion where we discussed how we did on those assessments and what things we felt like were helpful or not helpful…I think that was a big part of the success of the virtual simulation. But also, I think for me, and even some of my other colleagues mentioned, that sometimes with the mental health patients or geriatric in person, you get kind of like, "Oh, what am I going to say?" so for me, it was a great option of practicing those phrases or what we would say because in a real life situation, if you have a manic patient and you haven't had that before, sometimes you can kind of be like, wide eyed, deer in headlights…. Then, once I was in the ER with clinicals, I actually dealt with actively manic patients and used some of the same phrases that I practiced.*

> **Kai (student):** *We did the high-fidelity manikins…simulations online too…. You would do some of the simulations before you went into the high fidelity {simulation}, it gave you like a practice run, and then you felt more confident going into the actual simulation.*

These students described an experience of learning through simulated delivery methods. When students were engaged in debriefing with the faculty or preparation ahead of the experience, the connection with transformative thought was experienced. The student makes a transition in a nursing education program through comportment into thinking like a nurse, which can be met through the engagement with faculty as the guide to learning.

Faculty and students both experienced a transition in moving away from *how we have always done it* to a new way of thinking about nursing education. This faculty member shared their thoughts about the impact going through the pandemic has made:

Dakota (faculty): *I don't know that we'll ever go back completely to how it was because we're finding that the shared experience and… debriefing is key… what we've learned out of the debriefing sessions from our simulation experiences has shifted how we deal with post-conference and debriefings in clinical as well. But that supportive processing is so important in ways that we knew, but we know at a different level now.*

Through this transition, faculty participants recognized the true value of debriefing and allowing students to hear how faculty think through a patient case. Teaching and learning modalities during the pandemic provided insight into the experience of changing teaching strategies. One faculty member described some creative approaches to addressing the challenges introduced by clinical site restrictions and some efforts to provide grace to students during this difficult period.

Micah (faculty): *People were using the neck of a 20-ounce pop bottle to be a catheter… We brought them in 2 weeks early and ran a boot camp of sorts to kind of get them through the skills, lots of grace…. We kind of caught them up over the year because… I couldn't fail them out of a program for not being able to pass the skill that they really didn't have any opportunity to practice…. When we did come back in the fall, we were back, full time, but a lot of facilities weren't letting our students in, so we'd have a group of 10 students, they'd only allow five students.*

Faculty used creative teaching and learning strategies to engage students in the experience. Over the 2 years, full capacity in clinicals was a continued challenge and faculty needed to overcome many obstacles to increase engagement in learning.

Power

The focus of nursing education has typically centered around student learning. The COVID-19 pandemic caused educators to shift attention toward task-oriented procedures and addressing operational aspects that were not part of the focus in the past. Many prelicensure RN programs shifted to virtual clinical simulation or made other adjustments to their delivery formats in response to shifting state regulatory standards. Some states moved to allow a waiver for 100% virtual learning, while others did not place a percentage on the shift. In addition to program adjustments, there was the task of monitoring COVID-19, as this administrator described:

Ainsley (administrator): *I loved my role as {an administrator}. It used to be very focused on building community partnerships and on our practice partners and working with the workforce development people in the state and the Department of Health and really sort of expanding interprofessional educational opportunities…. I had to abandon that except for things I was already grant funded to complete. I abandoned about 80% of that work because my role ended up being the keeper of documents. Who's vaccinated, who's not? Who signed an attestation form, who didn't? Who's been fitted for their N95?*

The shift in focus from program development to COVID-19 management created a disproportionate and continued demand on addressing current roles, while creating an entire new system of tasks. Administrators and faculty were required to address these competing demands, which expanded to state and national perspectives.

Differences in how local and state officials addressed COVID-19 varied widely across the nation, and that greatly informed on what program changes were implemented and how. The administrators adjusted to rapidly changing policies from the organization, state, accreditation, and national aspects, and this included times when there were discrepancies between state policies and accreditation. States wanted programs to increase student enrollment, while the policies being proposed did not match regulatory, accreditation, or program standards, as this administrator described:

Eden (administrator): *{State legislatures} said that any program could expand as much as they wanted to, without any hindrance from the board of nursing…previously the board would tell us you're accredited for {baseline numbers} and if you go more than the percentage of this, you have to ask for permission and make sure that you have enough clinical sites and faculty in order to support your request…. {The state legislature} {also} didn't want them to stop working as nurses just because they couldn't pass the NCLEX…a lot of my time has been taken up with political advocacy, working with both the {state} Nurses Association and the {state} board of nursing to try to correct some of these bills.*

This administrator also described state legislation that was different than the state BON regulatory standard. Administrators were faced with being political advocates on top of handling administration changes to policies for their programs. In addition to these

challenges, administrators were navigating the burden of losing faculty, as one administrator described the twofold impact of early retirements offered at the university layered on top of a hiring freeze:

> **Shawn (administrator):** *We were imposed on a hiring freeze. We were not able to replace any of our full-time faculty who took the early retirement, but at the same time, the college suffered a tremendous amount of loss of students. They were pressuring us to increase our enrollment and we also got pressure from the community because they needed more nurses, and so, they were asking us to increase enrollment and create new programs.*

Participants were navigating an experience of power shifts in nursing education that extended well beyond the walls of the program. The impact on these changes were experienced at all levels and continued to pervade the personal lives of faculty, students, and administrators.

Participants were feeling the pressures of school, politics, and policies while dealing with the devastating impacts of lives being lost and patients dying alone during the pandemic. Participants discussed this perspective while trying to continue maintaining high standards in nursing education. Confusion existed, and participants shared multiple perspectives regarding personal aspects during the pandemic:

> **Carson (student):** *I felt forced into getting the {COVID} vaccination, even though I wanted to wait just a little bit longer to see how my life plans worked out. I think that the vaccine mandate really is why I completed the program because if it were up to me, I probably would've waited…. I've wanted to be a nurse for as long as I can remember. Am I really going to give up all that I had worked for, for my curiosities about a vaccine?*

It was an experience of the unknown at the time for both students and faculty. The struggle with making decisions about life circumstances at the time of the pandemic is one many participants shared. Students were faced with changing to adapt to the pandemic in addition to maintaining academic progress in the program based on those decisions. These types of challenges were also shared by administrators who further discussed the COVID-19 vaccine:

> **Chris (administrator):** *We had… students who chose not to get vaccinated, and so, this was a significant issue with finding them clinical sites, getting COVID-19 vaccine exemptions…. {We} even had an attorney {who} threatened to sue the state board of nursing, threatened to sue us, that has caused a lot of professional concerns, and that's part of the reason why we've lost some of our faculty members.*

Administrators were pulled away from the routine aspects of their positions to attend to legal and student clinical site compliance issues. Regardless of beliefs or misinformation campaigns, the challenge of this experience impacted programs at all levels. The challenges experienced by the participants moved the focus away from teaching nursing to dealing with the public health emergency. The students needed to engage in the learning experience while faculty and administrators were constantly pulled to address issues inherent in policy and procedures, which highlighted the fostering of salience through turmoil.

Theme 3: New Horizons for Healthcare

Nothing in this century has impacted healthcare in such a way as the COVID-19 pandemic, and these experiences have opened the possibility for a new understanding to emerge. Gadamer (2004) discusses the concept of *horizon*, which suggests the breadth of vision that a person needs in order to see a new way of understanding. The horizon is a way to expand upon how the participants came to understand nursing education during the pandemic.

Previous Ways of Knowing

Participants discussed ways they have learned from COVID-19, both through previous understanding and new perspectives. One participant shared some of what was lost because of the pandemic:

> **Carol (faculty):** *{Students} miss the role modeling in what it looks like to be a professional, what it looks like to be a nurse. How do you talk to a patient who's in distress? How do you talk to a crying family member? These are all pieces they missed. And you only get that with experience. You cannot get that on a screen of a computer. You get that from being in the moment with people going through hard things and that's how you learn how to maneuver and navigate that situation.*

The faculty shared that the students lacked communication techniques and professional role development with learning to be a nurse. Progression through a nursing program and the process of learning to become a nurse should be a transformative experience,

but without in-person interactions, certain aspects were lost. Administrators also discussed how change was inevitable at this point. As one participant put it:

> **London (administrator):** *I'm not sure that our education system is ever going to go back to full-time classroom successfully. I have a feeling that online teaching is here to stay, even in nursing and at least partially or some hybrid. And I really hope that schools at least keep that open as a possibility in these programs where nursing is probably one of the hardest to teach online. How do you do this?*

As this administrator shared, some hybrid modality was beneficial to nursing education. The one question that this administrator rhetorically asked was, "how do you do this?" referring to content delivery being hybrid and presented in an effective way. Students also commented on transforming nursing to meet the new challenges confronting the healthcare industry. Many of the most experienced nurses have retired early or left positions in many healthcare systems, leaving new graduates with less experienced nurse mentors. Student participants shared an experience of learning on their own or missing some of the key aspects that nurses with more experience had to share about practice. One student summed up the experience in the following way:

> **Val (student):** *{N}ursing education does need to change now with the world that we're in…because what ends up happening is we learn best-case scenario…and that never happens in real life…. It is this gap of "how do you nurse in the 21st century."*

The participants shared how the pandemic made impacts in nursing education, from letting go of previous ways of knowing while learning to function in a transformed healthcare system.

New Beginnings

In times of extreme change, new lessons are learned. Participants focused on many ways to change nursing education. Several faculty were continuing to work on research projects, improving approaches to teaching and learning, and securing tenure appointments during the pandemic on top of all the other challenges. Faculty related experiences that expanded students' thinking skills, such as the following:

> **Sage (faculty):** *Instead of debriefing at the end {of clinical}, we've instituted it in the midpoint of the shift…. It really worked after the pandemic because they were allowed to grow. We could assess their strengths and weaknesses in clinical by doing these structured questions and help them with prioritization and steer their thinking…. Significant growth occurred because they were allowed to come back after lunch and… asked better questions.*

The faculty experienced challenges, but lessons were learned about ways to expand thinking in teaching and learning, such as debriefing in the middle of a clinical day like this faculty member shared. Several students commented on the experience of working in healthcare while in school during the pandemic, which provided an expanded way of understanding a different horizon related to learning. They thought certain teaching strategies were helpful for their learning, as one student relayed:

> **Morgan (student):** *Just having those resources readily available that you can just hop on and access at any time are really great. Some of our zoom lectures were recorded, so having the ability to go back and re-watch was helpful. Then I think having PowerPoints and things that you could look at and reference was really helpful to me.*

The accessibility of having videos was not a common practice in nursing education prior to the pandemic. The expectation was to be in-person for class and video recordings were not provided because hybrid learning was not standard practice. The pandemic shaped the content delivery for an optional web-based format and recordings for students who were sick or caring for family, and this change was perceived as beneficial.

Participants shared how the delivery of clinical instruction was experienced during the pandemic. The following quotations reflect some of the common perspectives shared among participants:

> **Adrian (student):** *I just feel like nursing school does need to get with the times. And don't be afraid to send your students into whatever's going on if there is ever a future pandemic. That's what we signed up to do. So that's what we need to learn how to do.*

> **Ainsley (administrator):** *{New graduates are seeking roles} in primary care, so the federally qualified health centers and things like that, but some into more traditional public health and community health, home healthcare; agencies are offering new grad residencies around here and so that's been an interesting transition. It's not a huge number, but it's definitely an increase from the number of students we used to see…. We have more students not choosing acute care as new grads.*

The perspectives the participants shared about future possibilities create an opening for new horizons that reshape the previous ways of knowing and doing things as they always were done into potential new beginnings for nursing education.

Discussion

The three main themes and six subthemes revealed a sequencing of events from personal interactions to the chaos experienced during the pandemic and ultimately to the development of new ways of thinking about nursing education. The subthemes provided a depiction of the experience that describes what it was like for the participants going through the pandemic. The previously untold stories of the participants were revealed and new ways of approaching nursing education were discovered.

The Humanness of Nursing Education theme was discovered over the integration of technology via the internet. The participants adapted to the change in content delivery during the pandemic as a way to create order. Heidegger discussed an approach to order from his seminal work in *The Question Concerning Technology* (Heidegger, 1993): "Everywhere everything is ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for a further ordering. Whatever is ordered about in this way has its own standing" (p. 322). The object that was standing by to be used during the pandemic was the internet. The essence of technology is not reduced to a material object; rather, it is a phenomenon that provided a more profound understanding of the experiences of participants during this time of disarray. The use of the internet could be viewed as what Heidegger (1962) referred to as *ready-to-hand*. The internet was used as a tool to provide order (enframing) to educational tasks, like a hammer is a tool used for building objects. Through the integration of the internet, obstacles were met, and Heidegger (1962) referred to this as being *un-ready-to-hand* or *obtrusiveness*. The participants used the internet to deliver content because it was available as a means to an end, but through the overwhelming obstacles, the humanness of the experience was lost.

By bringing forth the essence of technology in nursing education at the time of the COVID-19 pandemic, we revealed a truth (*aletheia*) through the experiences that was not known at the time. These understandings cannot be measured or quantified but experienced at a point in time, thus fusing together the past, present, and future during the experience. It was not about the instrument used but the human connectedness of faculty to expand students' thinking through and about clinical situations, thus leading students to the comportment of being nurses. In this study, there were aspects of preparation in terms of the technicalities of the role, but as identified by Mirza et al. (2019), more research is needed related to humanistic characteristics of the experience. In nursing education, there was much to be lost if the dialogue and interactions between students and nurse experts were not emphasized during the program.

The theme Fostering Salience Through Turmoil was discovered as ultimately preparing students to be ready for practice during the challenges of the pandemic. A great deal of confounding factors created obstacles to engaging in learning, and many of these factors were outside of participants' control. Through these challenges, opportunities were generated for understanding how salience was fostered in a nursing program.

The concept of salience included how the new graduate nurse is prepared through educational experiences. The idea of being ready to practice is based on a multidimensional concept that includes personal, professional, clinical, and industrial factors (Harrison et al., 2020a) and continues to develop after graduation as a nurse. Factors that can influence the student being ready to practice include the effectiveness of academic clinical experiences and paid healthcare positions while in school (Harrison et al., 2020b). The quality of the educational experience (didactic, clinical, and simulation) is not completely understood, and it has been identified that there is a need for more robust research for how to prepare the next generation of nurses for the clinical setting (Currie et al., 2022; Ironside et al., 2014). Tinôco et al. (2021) performed a virtual educational intervention on nursing students and determined that effective use of both virtual and face-to-face characteristics in addition to effective educational interventions can lead to the development of clinical reasoning. More research examining these hybrid approaches to teaching and learning along with summative and formative measures will help expand the robust strategies needed in nursing education. Allen et al. (2022) recognized that students need realistic expectations of nursing to be prepared to practice, including the physical, emotional, and social aspects of the role. The results of this study emphasized those aspects of professional values in the role development of the student in addition to a need for learning clinical reasoning.

The students in this study were challenged during the pandemic to engage in learning and are now entering the nursing workforce—a workforce that has changed dramatically due to the pandemic, including a decline in healthcare safety (Fleisher et al., 2022). A clear expectation of the practice institution needs to be established related to the new graduate being ready to practice (Walters et al., 2022). Masso et al. (2022) identified that the practice environment receptiveness to the new graduate, with less emphasis on the education leading up to the transition, made a tremendous impact on being ready to practice. An urgent demand exists for practice partners to respond to the needs of new graduate nurses and their transitions, as they will need to develop a sense of salience in this new healthcare world. As one student asked, "How do you nurse in the 21st century?" Support is needed for a student to become confident, satisfied, and competent in the role of the nurse (Currie et al., 2022; Fowler et al., 2018; Hallaran et al., 2022; Levett-Jones & Lathlean, 2009), but a clear distinction for what it means to be ready to practice and create a sense of salience in this new healthcare field is greatly needed.

The final theme, New Horizons for Healthcare, was developed through interpretation of the impact the pandemic made on the participants. Carper (1975) introduced the fundamental ways of knowing in nursing that included empirical, aesthetic, personal, and ethical tenets. While these concepts were prevalent in this study, much more was experienced by the participants that extended well beyond those characteristics. Administrators were pulled to address policies and process-oriented concerns, faculty were challenged with new ways of delivering content, and students were balancing multiple competing priorities; all of these demands created a sense of loss of what was previously known in nursing education and an opportunity for new beginnings. Through this process, both the historical horizon built on past experiences and the present horizon fuse to form a new level of understanding (Gadamer, 2004). The participants changed their horizons through this experience by adjusting to changes in nursing education and realizing how the new world of healthcare is different. The tremendous navigation of program, state, and regulatory changes were a major part of the transitions and program stability, leading to a different understanding of the horizons. The pandemic challenges resulted in numerous losses in nursing education, but through loss, a new horizon was discovered that has opened future possibilities.

Limitations

While the sample size provided a wide net of participation in this qualitative work, generalizability may be limited. The purposive sample of selection within the current study was not randomized to the general population. Some participants communicated less than others, which may have prevented all participants from sharing their perspectives. The limitations of the focus group should be acknowledged, as some participants may have been more open if they were in a personal interview. Since this was a focus group, some participants may have been hesitant to share the full disclosure on their experience.

Conclusion

The value of the communal experience in nursing education was expressed by the participants. The engagement through a convergence of conversations and coaching by faculty through a series of questions can help guide students to a sense of salience and clinical reasoning (Benner et al., 2010). Students need to be challenged in how they think through clinical situations by avoiding repetitive, predictable modes of learning. Faculty can help students by challenging them to think through multiple perspectives while remaining supportive and present through the experience. The experience during the pandemic was one that revealed the way of "being in the world" of nursing education and brought new perspectives to the humanness of the experience.

A call for transformation in nursing and nursing education has been widely published in the literature (Benner et al., 2010; Institute of Medicine, 2011; Ironside, 2004; National Academy of Medicine, 2021), but nothing has impacted change quite like the COVID-19 pandemic. Participants learned to challenge assumptions in nursing education during the pandemic, and through those experiences, they brought new perspectives to what was important to faculty, students, and administrators in nursing education. Participants often focused on creating order, but it was quickly realized how order can get in the way of progressing thinking. The participants expressed the value of hybrid modes of learning and the usefulness of debriefing; however, the importance of effective implementation within those delivery systems was stressed. A great opportunity exists to enact change in nursing education. A new healthcare system with resilient approaches during a crisis aimed at maintaining high levels of safety and infection control, both of which were adversely affected during the pandemic in the United States (Fleisher et al., 2022; Lastinger et al., 2022), are desperately needed. These approaches must begin by effectively educating the next generation of nurses entering this dynamic workforce. Now is the time to disrupt nursing educational models and expand the robust educational research needed to effectively develop the next generation of nurses who are ready to practice in this new healthcare landscape.

Summary

The onset of COVID-19 in the United States in early March 2020 (Proclamation, No.1994) severely strained healthcare systems around the country (Office of the Assistant Secretary for Planning and Evaluation, 2022) and significantly disrupted traditional educational models (AACN, 2020). Compounding these issues further were the deleterious effects of the well-intentioned and often necessary policies put in place to mitigate the spread of the virus on prelicensure nursing education programs (Bultas & L'Ecuyer, 2022; Lanahan et al., 2022; Crismon et al., 2021; Goldberg, 2020). This comprehensive four-phase longitudinal study provides substantial evidence on prelicensure RN students' academic, engagement, and early career performance over the past 2.5 years. By systematically tracking the outcomes of nursing students in the spring 2022 cohort, NCSBN effectively captured in real-time the experiences of those undergraduates entering the core of their didactic and clinical nursing coursework during the COVID-19 pandemic.

The 51 prelicensure RN programs that participated in the study hailed from 27 states. They ranged from smaller private not-for-profit institutions with fewer than 20 nursing students to large flagship public institutions with nursing program enrollments in the hundreds. The summary results underscored the geographic, programmatic, and demographic diversity of our retained sample. This was evident both in terms of program characteristics, including program type (54.9% BSN, 45.1% ADN), setting (45.1% urban,

51.0% suburban/rural), and tax status (68.6% public institutions), as well as the racial (63% White) and ethnic (9% Hispanic) composition of their nursing student populations. Incorporating feedback from more than 1,100 student and faculty participants, including more than 4,000 course observations, this important work captures the breadth, scale, and ever-evolving nature of prelicensure RN programs' changes to their course delivery formats during the public health crisis. In doing so, it illuminates the many innovative ways prelicensure RN programs sought to address the unparalleled challenges they confronted and provides the mechanisms for measuring their efficacy and possible implications for patient safety.

The Shifting Landscape of Prelicensure RN Education

Seemingly overnight, nursing programs were forced to hastily pivot their lecture content to online course delivery formats and their patient care clinicals to computer-based simulation or virtual/augmented reality settings (Benner, 2020; Dewart et al., 2020; Innovations in Nursing Education, 2020; Kaminski-Ozturk & Martin, 2023; Martin et al., 2023). Nonetheless, our study found that most programs generally worked within the confines of long-established and evidence-based guidelines. In July 2020, prelicensure RN programs reported significant increases in the anticipated use of face-to-face simulation (+15%), but a majority did not report plans ($n = 499$, Mdn: 30%; IQR: 20%–50%) to exceed established guidelines (Hayden et al., 2014). Within the sample of programs that participated in our study, the proportional use of face-to-face simulation, as reported by faculty participants, confirmed an even more subdued application of related delivery formats (Mdn: 10%, IQR: 0%–25%).

The ascent of virtual clinical simulation also predated the pandemic (Aebersold, 2018). During the early stages of COVID-19, however, the relatively low cost, general availability, and range of virtual options presented a particularly appealing option to nursing educators and administrators (Morin, 2020; Kaminski-Ozturk & Martin, 2023). Thus, the need for rapid adaptation coupled with limited resources led many prelicensure nursing education programs to increasingly rely on virtual modalities to counteract clinical site restrictions (Jeffries et al., 2022). While 80% of programs that participated in our summer 2020 baseline survey planned to incorporate virtual simulation instruction to some degree, the change in the actual usage thresholds was relatively mild given the extent of the crisis (+20%). Still, the magnitude of this shift is perhaps made more evident by the proportion of programs that offered no virtual simulation hours pre- and postpandemic onset (fall 2019 $n = 130$ vs. fall 2020 $n = 11$). Nonetheless, the evidence suggests that most prelicensure RN programs moderated their use of this instructional medium (Mdn: 25%, IQR: 15%–50%), perhaps due to the absence of evidence-based guidelines. Within the sample of programs that participated in our study, the proportional use of virtual simulation was even lower (Mdn: 10%, IQR: 0%–25%).

Shifts to online delivery of lecture content were even more pronounced. This was true across the prelicensure nursing education landscape (+60% compared to fall 2019) and within our institutional sample (+48%). Strikingly, the number of programs that offered no online lecture hours decreased from 167 in fall 2019 to just 21 in fall 2020 ($p < .001$). By contrast, the number of programs that offered all of their lecture hours online increased from 10 in fall 2019 to 153 in fall 2020 ($p < .001$). Taken together with evolving modes of clinical instruction, the evidence paints a picture of a significant shift in the ways in which prelicensure RN students were educated over the past 3 years.

Within-Program Student Results

Unfortunately, as scholars have documented (Kardong-Edgren, 2019; Luctkar-Flude & Tyerman, 2021; Jeffries et al., 2022), the rapid adoption of virtual clinical simulation in nursing education has not been without growing pains. A consistent trend that emerged from this study was the superior outcomes documented, by both students and faculty alike, for in-person clinicals or face-to-face simulations vis-à-vis virtual simulated environments. These results manifested time and again in a variety of ways, including observed patterns in the reported results by program setting, type, students' Pell Grant status, and the timing of students' clinical rotations. In each instance, programs and students that fit certain profiles, such as students who self-identified as non-White and attended urban-based BSN programs, were significantly more likely to rely on pronounced increases in face-to-face simulation or virtual clinical simulation. Perhaps this was due to both the severity of the COVID-19 infection rates in those areas and the restrictions put in place to address them. Similarly, clinical rotations that were more likely to occur during the 2021–2022 academic year, such as advanced medical surgical and maternal-newborn, often confirmed students' greater mastery of associated proficiencies compared to frontloaded topics, such as fundamentals, when various modes of simulation use peaked.

Interestingly, one contrast that emerged between the student and faculty self-report data was the effect of the passage of time. For students, the effects of the pandemic appeared to dissipate somewhat over time as the pronounced use of virtual simulation abated. By contrast, faculty observations and ratings of clinical competence gradually declined over the reporting period, with notable reductions in student engagement (32.0% much/less engaged) and work quality (21.6% much/poorer quality) documented over the 2-year period. The dissonance between these trends may perhaps reflect the point-in-time difficulties for students navigating the constantly shifting landscape, particularly during the first year of the pandemic. Overall, these trends may suggest links to early disruptions driven by surges in COVID-19 infections and hospitalizations, the loosening of restrictions over time, and simply students' acclimation

to new conditions. By comparison, faculty perceptions of students' inability to scale their knowledge may signal the end of a "grace period" for relatively inexperienced (median 3 years' experience, 2.4% CHSE certified) simulation educators' evaluation of students' work quality and progression.

Overall, evidence from early in the pandemic suggests some prelicensure RN programs employed unproven virtual modalities for traditional clinical hours and strayed from even the few foundational elements underpinning virtual simulation (Dolan et al., 2021). While improved student ratings over the 2-year period stand in apparent contrast to the inverse trend observed for faculty CCEI evaluations, these seemingly divergent patterns may speak to one general truth: Programs and faculty learned from their initial trial and error during the first few academic terms of the COVID-19 pandemic and simultaneously recognized the likelihood that sustained reliance on virtual teaching methods would be necessary. As a result, the gradual return to normal, including once again relying on more traditional modes of learning, during the second of the 2 years of within-program data collection, may have led to improved student ratings. At the same time, the faculty's prolonged use of and acclimation to new teaching methods may have increased their proficiency with such resources and in turn their expectations regarding students' performance.

Furthermore, the near wholesale shift in online delivery of lecture content inevitably impacted students' learning (24.6% much/poorer quality) and engagement (35.9% much/less engaged) outcomes as well. In-person (affective, psychomotor) and hybrid (cognitive, affective, psychomotor) learning consistently surpassed reported outcomes for online lectures. Similarly, students who enrolled in in-person and hybrid lecture courses also reported higher levels of engagement compared to those in online learning environments. Interestingly, these were among the few patterns that held for standardized examination scores as well, with programs that reported a larger online presence more likely to report lower NCLEX-RN results, albeit still well above the national average.

As other studies have documented, emergency guidance from BONs likely played an essential role in supporting and directing prelicensure nursing programs' activities during this turbulent period (Chan et al., 2021; Kaminski-Ozturk & Martin, 2023). Through proactive implementation of evidence-based guidelines (Alexander et al., 2015) and regular communication with nursing programs early in the pandemic, BONs not only provided the necessary flexibility to ensure the continuity of student learning (Bradley et al., 2019; NCSBN, 2021), but likely also ensured prelicensure RN programs did not stray too far from empirically based best practices (Hayden et al., 2014). As a result, although this study confirmed that pandemic disruptions to traditional academic teaching models led to significant shifts in students' self-reported learning and engagement, as well as faculty assessments of student competencies, the effects may have been somewhat mitigated.

Postgraduation and Early Career Outcomes

Given the systemic shock presented by the pandemic and the range of strategies employed by nursing education programs to counter it, it is unsurprising that emerging evidence on student outcomes has been mixed. Perhaps the most alarming trend documented to date is the decline in first-time NCLEX pass rates (down 7% − 8% since 2019) for U.S.-educated graduates (NCSBN, 2022). By comparison, programs enrolled in our study outperformed the national standard in this category, with little variation documented across within-program and NCLEX-RN standardized examination scores by aggregate institutional characteristics. In those instances where some preliminary distinctions emerged, patterns were consistent with faculty and student self-report data. Namely, programs that reported pronounced increases in their utilization of virtual simulation, particularly those that indicated no additional institutional resources to support such a transition, documented declines in their ATI, HESI, and Kaplan results. In addition, programs that fell short of the 80% first-time NCLEX-RN passing threshold often relied on higher levels of virtual simulation.

By contrast, programs that increased their utilization of more established face-to-face simulation within preestablished evidence-based guidelines documented higher ATI, HESI, and Kaplan results and often met or surpassed the 80% first-time NCLEX-RN passing threshold. Despite the noted limitations and availability of standardized examination measures in this study, results appeared to confirm that adherence to established evidence-based guidelines on face-to-face simulation use aligned with stronger student outcomes. In addition to seldom exceeding the simulation thresholds put forth by NCSBN (Alexander et al., 2015), programs in our sample also required a median of 681 hours of clinical training. Both elements provide a critical lens for interpreting the potential impact of the utilization trends observed in this study, as it did in the National Simulation Study (Hayden et al., 2014).

Similar findings have resulted in increased calls for future work assessing how possible learning deficiencies inform new graduates' early career outcomes (Lanahan et al., 2022). In this study, early career performance and diagnostic critical thinking metrics did indeed reveal consistent results, albeit with some nuances. Although changes to programs' course delivery formats did drive most observed differences, domain-specific results varied based on the type, magnitude, and timing of the changes. For instance, a pronounced reliance on face-to-face simulation in fall 2020 led to lower initial ratings across select domains (technical skills, communication, and management of responsibilities), but these effects dissipated over the 2-year period. This perhaps reflects programs' learning curve even in implementing evidence-based—but still new to programs—clinical simulation practices.

The inverse was true of virtual simulation use. Programs' sustained use of virtual simulation over the 2-year reporting window led to lower mean ratings on critical thinking and management of responsibilities. An issue of scale also emerged, as graduates of programs

that reported increased use of simulation or virtual simulation for more than 50% of the clinical rotations were more likely to report lower proficiency for their technical and communication skills. As the pandemic recedes, virtual clinical simulation now appears to be an established component of the nursing educational landscape (Brown et al., 2021), especially due to its distinct cost advantage (Haerling, 2018). Given the consistency of our findings, and with broader adoption seemingly inevitable, further research on the best tools and methods to ensure comparable student learning and engagement outcomes in virtual clinical environments is critical.

Shifts to online delivery of lecture content were also associated with drop-offs in students' self-reported proficiency across clinical knowledge, technical skills, critical thinking, communication, professionalism, and management of responsibilities. Despite the bulk of literature focusing—and rightly so—on applied clinical education, it's imperative to remain cognizant of parallel disruptions to didactic course delivery methods. Course-for-course, the disruptions documented in this study were even more pronounced and widespread for students' lecture content. In part, this appears to have contributed to students' self-reported perceptions of learning loss, lower engagement, and reduced proficiencies across early career outcomes.

For the most part, additional differences observed in early career results (e.g., program type) tied back to course delivery format; however, pronounced and consistently divergent patterns also emerged by participant race. New nurse graduates who identified as non-White reported lower proficiencies across six of the nine tracked performance and diagnostic critical thinking domains: (a) clinical knowledge, (b) technical skills, (c) critical thinking, (d) communication, (e) management of responsibilities, and (f) decision making. In part, these differences are likely attributable to other documented patterns. For instance, non-White new nurse graduates tended to disproportionately attend urban-based programs (+11.5% compared to suburban and +16.2% rural), which in turn were significantly more likely to rely on remote and simulation-based learning environments. However, unlike other student outcome measures, few other criteria that displayed similar degrees of overlap with changes to course delivery format earlier, such as region, program type, etc., presented on early career metrics. Coupled with lower faculty CCEI evaluation scores and evidence regarding the barriers to online learning broadly encountered by underrepresented minorities (barriers that existed long before but were exacerbated by the pandemic) (Bell et al., 2022; Barber et al., 2021; Soria et al., 2020; Hartzell et al., 2021), these self-reported deficiencies are likely more nuanced and warrant further investigation by racial category.

Conclusion

The students in this study were forced to engage in learning in a manner inconsistent with their prior education and are now entering a nursing workforce that has changed dramatically due to the pandemic (Fleisher et al., 2022). Forthcoming results of NCSBN's 2022 National Nursing Workforce Study estimate that nearly one-quarter of the RN workforce is now aged 34 years or younger, representing a generational shift in the nursing profession and perhaps an unprecedented loss in institutional knowledge. Furthermore, the report also confirms that nurses are experiencing heightened levels of burnout and stress due to the pandemic (Martin, Kaminski-Ozturk, O'Hara, & Smiley, 2023). When one also considers that this study and others (Crismon et al., 2021; Bultas & L'Ecuyer, 2022; Lanahan et al., 2022) have clearly documented recent graduates' perceived clinical deficiencies, today's new nurses may feel they are in a more precarious position than their predecessors. Thus, an urgent demand exists for practice partners to respond to the needs of new graduate nurses and facilitate transitions to early career practice that develop a sense of salience in this new healthcare landscape.

Participants in this study learned to challenge assumptions in nursing education during the pandemic, and through those experiences, they brought new perspectives to what was important to faculty, students, and administrators in nursing education. They focused on creating order, but this frequently came at the expense of other critical aspects of the process of learning to become a nurse. Participants in our study expressed the value of hybrid modes of learning and the usefulness of debriefing; however, the paramount importance of effective implementation with those delivery systems was stressed. A great opportunity exists to enact change in nursing education. A new healthcare system with resilient approaches aimed at maintaining high levels of safety (Fleisher et al., 2022) and infection control (Lastinger et al., 2022) during crises are desperately needed. This begins by effectively educating the next generation of nurses entering this dynamic workforce.

In one regard, all researchers agree that the future of nursing education will almost assuredly look different after the pandemic (Leaver et al., 2022). Gaps in nursing education were revealed during the pandemic. Moving forward, there is a need to expand and improve disaster and public health emergency education and training at a minimum (NCSBN, 2023). In addition, long-standing nursing faculty shortages (Yedidia et al., 2014; Thomas et al., 2019) were exacerbated by the pandemic (Sacco & Kelly, 2021) and resulted in relatively inexperienced (median 3 years of simulation, 2 years online teaching) and unprepared (2.4% CHSEs) instructors shouldering much of the burden in guiding students through these challenging times. Now is the time to disrupt nursing educational models and expand the robust educational research needed to effectively develop the next generation of nurses. This will likely necessitate that colleges and universities bolster their faculty recruitment, training, and retention strategies. It will also require nursing programs and faculty to reevaluate their use of educational technology to facilitate experiential learning opportunities.

This important work captures both the breadth and scale of prelicensure RN programs' early and sustained changes to their course delivery formats. It correlates programs' ever-evolving responses to the pandemic and an array of student learning, engagement, and early outcomes. Given the scope of this work, the results not only document the many innovative ideas and strategies employed by nursing faculty and administrators who participated in our study, but they also provide a detailed evaluation of the associated results to identify best practices. In turn, this allows researchers across a range of disciplines, including, but not limited to, regulation, nursing, and education, a unique opportunity to identify and critically examine the many ways in which prelicensure RN programs around the country sought to address the nearly unparalleled challenges they confronted on a daily basis over the past 3 years. This study stands as the most comprehensive assessment of prelicensure nursing education in the United States since the onset of COVID-19. It extends knowledge by linking potential deficiencies in students' didactic and clinical education during the pandemic and their early career preparedness and clinical competence, and in doing so illuminates the possible implications for patient safety moving forward.

References

Aebersold, M. (2018). Simulation-based learning: No longer a novelty in undergraduate education. *OJIN: The Online Journal of Issues in Nursing*, *23*(2). https://doi.org/10.3912/OJIN.Vol23No02PPT39

Alexander, M., Durham, C. F., Hooper, J. I., Jeffries, P. R., Goldman, N., Kardong-Edgren, S., Kesten, K. S., Spector, N., Tagliareni, E., Radtke, B., & Tillman, C. (2015). NCSBN simulation guidelines for prelicensure nursing programs. *Journal of Nursing Regulation, 3*(6), 39–42. https://doi.org/10.1016/S2155-8256(15)30783-3

Allen, L. M., Cooper, S. J., & Missen, K. (2022). Bachelor of science in nursing students' perceptions of being a nurse: A scoping review. *Journal of Professional Nursing, 42*, 281–289. https://doi.org/10.1016/j.profnurs.2022.07.021

Alsaigh, R., & Coyne, I. (2021). Doing a hermeneutic phenomenology research underpinned by Gadamer's philosophy: A framework to facilitate data analysis. *International Journal of Qualitative Methods*, *20*. https://doi.org/10.1177/16094069211047820

American Association of Colleges of Nursing. (n.d.). Academic-practice partnership resources. https://www.aacnnursing.org/Academic-Practice-Partnerships

American Association of Colleges of Nursing. (2020, March 20). Considerations for COVID-19 preparedness and response in U.S. schools of nursing. https://www.aacnnursing.org/News-Information/COVID-19/AACN-Recommendations

Badowski, D., Rossler, K. L., & Reiland, N. (2021). Exploring student perceptions of virtual simulation versus traditional clinical and manikin-based simulation. *Journal of Professional Nursing*, *37*(4), 683–689. https://doi.org/10.1016/j.profnurs.2021.05.005

Barber, P. H., Shapiro, C., Jacobs, M. S., Avilez, L., Brenner, K. I., Cabral, C., Cebreros, M., Cosentino, E., Cross, C., Gonzalez, M. L., Lumada, K. T., Menjivar, A. T., Narvaez, J., Olmeda, B., Phelan, R., Purdy, D., Salam, S., Serrano, L., Velasco, M. J., … Levis- Fitzgerald, M. (2021). Disparities in remote learning faced by first-generation and underrepresented minority students during COVID-19: Insights and opportunities from a remote research experience. *Journal of Microbiology & Biology Education*, *22*(1), Article ev22i1.2457. https://doi.org/10.1128/jmbe.v22i1.2457

Bell, T., Aubele, J. W., & Perruso, C. (2022). Digital divide issues affecting undergraduates at a Hispanic-serving institution during the pandemic: A mixed-methods approach. *Education Sciences, 12*(2), 115. https://doi.org/10.3390/educsci12020115

Benner, P. (2020, March 19). *Finding online clinical replacement solutions during the COVID-19 pandemic.* https://www.educatingnurses.com/author/pbenner/page/4/

Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating nurses: A call for radical transformation*. Jossey-Bass.

Berkow, S., Virkstis, K., Stewart, J., & Conway, L. (2008). Assessing new graduate nurse performance. *JONA: The Journal of Nursing Administration*, *38*(11), 468–474. https://doi.org/10.1097/01.nna.0000339477.50219.06

Booth, T. L., Emerson, C. J., Hackney, M. G., & Souter, S. (2016). Preparation of academic nurse educators. *Nurse Education in Practice, 19*, 54–57. https://doi.org/10.1016/j.nepr.2016.04.006

Bradbury-Jones, C., Sambrook, S., & Irvine, F. (2009). The phenomenological focus group: An oxymoron? *Journal of Advanced Nursing*, *65*(3), 663–671. https://doi.org/doi:10.1111/j.1365-2648.2008.04922.x

Bradley, C. S., Johnson, B. K., Dreifuerst, K. T., White, P., Conde, S. K., Meakim, C. H., Curry-Lourenco, K., & Childress, R. M. (2019). Regulation of simulation use in United States prelicensure nursing programs. *Clinical Simulation in Nursing, 33*, 17–25. https://doi.org/10.1016/j.ecns.2019.04.004

Brown, K. M., Swoboda, S. M., Gilbert, G. E., Horvath, C., & Sullivan, N. (2021). Integrating virtual simulation into nursing education: A roadmap. *Clinical Simulation in Nursing, 72*, 21–29. https://doi.org/10.1016/j.ecns.2021.08.002.

Bryant, K., Aebersold, M. L., Jeffries, P. R., & Kardong-Edgren, S. (2020). Innovations in simulation: Nursing leaders' exchange of best practices. *Clinical Simulation in Nursing*, *41*, 33–40. https://doi.org/10.1016/j.ecns.2019.09.002

Budden, J. S. (2011). A survey of nurse employers on professional and practice issues affecting nursing. *Journal of Nursing Regulation, 1*(4), 17–25. https://doi.org/10.1016/S2155-8256(15)30312-4

Bultas, M. W., & L'Ecuyer, K. M. (2022). A longitudinal view of perceptions of entering nursing practice during the COVID-19 pandemic. *The Journal of Continuing Education in Nursing, 53*(6), 256–262. https://doi.org/10.3928/00220124-20220505-07

Carper, B. A. (1975). *Fundamental patterns of knowing in nursing.* Teachers College, Columbia University.

Chan, G. K., Bitton, J. R., Allgeyer, R. L., Elliott, D., Hudson, L. R., & Moulton Burwell, P. (2021). The impact of COVID-19 on the nursing workforce: A national overview. *OJIN: The Online Journal of Issues in Nursing, 26*(2), Article 2. https://doi.org/10.3912/OJIN.Vol26No02Man02

Côté-Arsenault, D., & Morrison-Beedy, D. (2001). Women's voices reflecting changed expectations for pregnancy after perinatal loss. *Journal of Nursing Scholarship*, *33*(3), 239–244. https://doi.org/10.1111/j.1547-5069.2001.00239.x

Crismon, D., Mansfield, K. J., Hiatt, S. O., Christensen, S. S., & Cloyes, K. G. (2021). COVID-19 pandemic impact on experiences and perceptions of nurse graduates. *Journal of Professional Nursing, 37*(5), 857–865. https://doi.org/10.1016/j.profnurs.2021.06.008

Currie, J., Thompson, C., Grootemaat, P., Andersen, P., Finnegan, A., Carter, M., & Halcomb, E. (2022). A scoping review of clinical skill development of preregistration registered nurses in Australia and five other English-speaking countries. *Journal of Clinical Nursing, 32(1–2), 283–297*. https://doi.org/10.1111/jocn.16239

Dewart, G., Corcoran, L., Thirsk, L., & Petrovic, K. (2020). Nursing education in a pandemic: Academic challenges in response to COVID-19. *Nurse Education Today, 92*, Article 104471. https://doi.org/10.1016/j.nedt.2020.104471

Dibley, L., Dickerson, S., Duffy, M., & Vandermause, R. (2020). *Doing hermeneutic phenomenological research: A practical guide*. Sage Publications.

Dolan, H., Amidon, B. J., & Gephart, S. M. (2021). Evidentiary and theoretical foundations for virtual simulation in nursing education. *Journal of Professional Nursing*, *37*(5), 810–815. https://doi.org/10.1016/j.profnurs.2021.06.001

Fleisher, L. A., Schreiber, M., Cardo, D., & Srinivasan, A. (2022). Health care safety during the pandemic and beyond—Building a system that ensures resilience. *New England Journal of Medicine*, *386*(7), 609–611. https://doi.org/10.1056/NEJMp2118285

Fogg, N., Kubin, L., Wilson, C. E., & Trinka, M. (2020). Using virtual simulation to develop clinical judgment in undergraduate nursing students. *Clinical Simulation in Nursing*, *48*, 55–58.

Foronda, C. L. (2021). What is virtual simulation? [Letter]. *Clinical simulation in Nursing*, *52*, 8. https://doi.org/10.1016/j.ecns.2020.12.004

Foronda, C. L., Fernandez-Burgos, M., Nadeau, C., Kelley, C. N., & Henry, M. N. (2020). Virtual simulation in nursing education: A systematic review spanning 1996 to 2018. *Simulation in Healthcare, 15*(1), 46–54. https://doi.org/10.1097/SIH.0000000000000411

Fowler, A. C., Twigg, D., Jacob, E., & Nattabi, B. (2018). An integrative review of rural and remote nursing graduate programmes and experiences of nursing graduates. *Journal of Clinical Nursing*, *27*(5–6), e753–e766. https://doi.org/10.1111/jocn.14211

Gadamer, H.-G. (2004). *Truth and method (2nd rev. ed.)*. Continuum.

Goldberg, E. (2020, March 22). Coronavirus may keep California's nursing students from graduating. *New York Times*. https://www.nytimes.com/2020/03/20/health/coronavirus-nurses-healthcare.html

Haerling, K. A. (2018). Cost-utility analysis of virtual and mannequin-based simulation. *Simulation in Healthcare, 13*(1), 33–40. https://doi.org/10.1097/sih.0000000000000280

Hallaran, A. J., Edge, D. S., Almost, J., & Tregunno, D. (2022). New nurses' perceptions on transition to practice: A thematic analysis. *Canadian Journal of Nursing Research, 55(1)*. https://doi.org/10.1177/08445621221074872

Halling, S., Kunz, G., & Rowe, J. O. (1994). The contributions of dialogal psychology to phenomenological research. *Journal of Humanistic Psychology*, *34*(1), 109–131. https://doi.org/10.1177/00221678940341007

Hansen, M. (2008). Versatile, immersive, creative and dynamic virtual 3-D healthcare learning environments: A review of the literature. *Journal of Medical Internet Research*, *10*(3), e26. https://doi.org/10.2196/jmir.1051

Harper, D. C., Poe, T. L., Stewart, J., Powers, S., Watts, P., McLain, R., & Shirey, M. R. (2022). Academic-practice partnership pivot during COVID-19 pandemic surge. *Nursing Administration Quarterly, 46*(2), 103–112. https://doi.org/10.1097/naq.0000000000000520

Harrison, H., Birks, M., Franklin, R., & Mills, J. (2020a). An assessment continuum: How healthcare professionals define and determine practice readiness of newly graduated registered nurses. *Collegian*, *27*(2), 198–206. https://doi.org/10.1016/j.colegn.2019.07.003

Harrison, H., Birks, M., Franklin, R. C., & Mills, J. (2020b). Fostering graduate nurse practice readiness in context. *Collegian*, *27*(1), 115–124. https://doi.org/10.1016/j.colegn.2019.07.006

Hartzell, S. Y. T., Hagen, M. M., & Devereux, P. G. (2021). Disproportionate impacts of COVID-19 on university students in underrepresented groups: A quantitative and qualitative descriptive study to assess needs and hear student voices. *Journal of Higher Education Management, 36*(1), 144–153.

Hayden, J. (2010). Use of simulation in nursing education: National survey results. *Journal of Nursing Regulation*, *1*(3), 52–57. https://doi.org/10.1016/S2155-8256(15)30335-5

Hayden, J. K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & Jeffries, P. R. (2014). The NCSBN National Simulation Study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation, 5*(2), S3–S40. https://doi.org/10.1016/S2155-8256(15)30062-4

Heidegger, M. (1962). *Being and time*. Harper.

Heidegger, M. (1993). *Basic writings: From being and time (1927) to the task of thinking (1964) (D. F. Krell, Ed.)*. Harper San Francisco.

Innovations in nursing education: Recommendations in response to the COVID-19 pandemic. (2020, March 30). https://nepincollaborative.org/wp-content/uploads/2020/08/Nursing-Education-and-COVID-Pandemic-March-30-2020-FINAL.pdf

Institute of Medicine. (2011). *The future of nursing: Leading change, advancing health*. The National Academies Press.

Ironside, P. M. (2004). "Covering content" and teaching thinking: Deconstructing the additive curriculum. *Journal of Nursing Education*, *43*(1), 5–12. https://doi.org/10.3928/01484834-20040101-02

Ironside, P. M., McNelis, A. M., & Ebright, P. (2014). Clinical education in nursing: Rethinking learning in practice settings. *Nursing Outlook*, *62*(3), 185–191. https://doi.org/10.1016/j.outlook.2013.12.004

Jeffries, P. R., Bushardt, R. L., DuBose-Morris, R., Hood, C., Kardong-Edgren, S., Pintz, C., Posey, L., & Sikka, N. (2022). The role of technology in health professions education during the COVID-19 pandemic. *Academic Medicine*, *97*(3S), S104–S109. https://doi.org/10.1097/ACM.0000000000004523

Kaminski-Ozturk, N., & Martin, B. (2023). Prelicensure Nursing Clinical Simulation and Regulation During the COVID-19 Pandemic (in press). *Journal of Nursing Regulation, 14*(1)

Kardong-Edgren, S. S., Farra, S. L., Alinier, G., & Young, H. M. (2019). A call to unify definitions of virtual reality. *Clinical Simulation in Nursing*, *31*, 28–34. https://doi.org/10.1016/j.ecns.2019.02.006

Konrad, S., Fitzgerald, A., & Deckers, C. (2021). Nursing fundamentals–supporting clinical competency online during the COVID-19 pandemic. Teaching and Learning in Nursing, 16(1), 53-56.

Lanahan, M., Montalvo, B., & Cohn, T. (2022). The perception of preparedness in undergraduate nursing students during COVID-19. *Journal of Professional Nursing*, *42*, 111–121. https://doi.org/10.1016/j.profnurs.2022.06.002

Lastinger, L. M., Alvarez, C. R., Kofman, A., Konnor, R. Y., Kuhar, D. T., Nkwata, A., Patel, P. R., Pattabiraman, V., Xu, S. Y., & Dudeck, M. A. (2022). Continued increases in the incidence of healthcare-associated infection (HAI) during the second year of the coronavirus disease 2019 (COVID-19) pandemic. *Infection Control & Hospital Epidemiology*, 1–5. https://doi.org/10.1017/ice.2022.116

Laverty, S. M. (2003). Hermeneutic phenomenology and phenomenology: A comparison of historical and methodological considerations. *International Journal of Qualitative Methods*, *2*(3), 21–35. https://doi.org/10.1177/160940690300200303

Lavoie, P., & Clarke, S. P. (2017). Simulation in nursing education. *Nursing, 47*(7), 18–20. https://doi.org/10.1097/01.NURSE.0000520520.99696.9a

Leaver, C. A., Stanley, J. M., & Veenema, T. G. (2022). Impact of the COVID-19 pandemic on the future of nursing education. *Academic Medicine*, *97*(3S), S82–S89. https://doi.org/10.1097/acm.0000000000004528

Leighton, K. (2015). Development of the clinical learning environment comparison survey. *Clinical Simulation in Nursing*, *11*(1), 44–51. https://doi.org/10.1016/j.ecns.2014.11.002

Leighton, K., Kardong-Edgren, S., Schneidereith, T., Foisy-Doll, C., & Wuestney, K. A. (2021). Meeting undergraduate nursing students' clinical needs: A comparison of traditional clinical, face-to-face simulation, and screen-based simulation learning environments. *Nurse Educator*, *46*(6), 349–354. https://doi.org/10.1097/nne.0000000000001064

Levett-Jones, T., & Lathlean, J. (2009). The Ascent to Competence conceptual framework: An outcome of a study of belongingness. *Journal of Clinical Nursing*, *18*(20), 2870–2879.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.

Luctkar-Flude, M., & Tyerman, J. (2021). The rise of virtual simulation: Pandemic response or enduring pedagogy? *Clinical Simulation in Nursing*, *57*. https://doi.org/10.1016/j.ecns.2021.06.008

Martin, B., Buck, M., & Zhong, E. (2023). Evaluating the impact of executive orders lifting restrictions on advanced practice registered nurses during the COVID-19 pandemic (in press). *Journal of Nursing Regulation, 14*(1)

Martin, B., & Kaminski-Ozturk, N. (2023). A preliminary examination of healthcare facilities' nurse staffing strategies to address COVID-19 surges (in press). *Journal of Nursing Regulation, 14*(1)

Martin, B., Kaminski-Ozturk, N., O'Hara, C., & Smiley, R. (2023). Examining the Impact of the COVID-19 Pandemic on Burnout & Stress Among U.S. Nurses (in press). *Journal of Nursing Regulation, 14*(1)

Maruca, A. T., Diaz, D. A., Stockmann, C., & Gonzalez, L. (2018). Using simulation with nursing students to promote affirmative practice toward the lesbian, gay, bisexual, and transgender population: A multisite study. *Nursing Education Perspectives*, *39*(4), 225–229. https://doi.org/10.1097/01.nep.0000000000000302

Masso, M., Sim, J., Halcomb, E., & Thompson, C. (2022). Practice readiness of new graduate nurses and factors influencing practice readiness: A scoping review of reviews. *International Journal of Nursing Studies*, *129*, Article 104208. https://doi.org/10.1016/j.ijnurstu.2022.104208

Michel, A., Ryan, N., Mattheus, D., Knopf, A., Abuelezam, N. N., Stamp, K., Branson, S., Hekel, B., & Fontenot, H. B. (2021). Undergraduate nursing students' perceptions on nursing education during the 2020 COVID-19 pandemic: A national sample. *Nursing Outlook, 69*(5), 903–912. https://doi.org/10.1016/j.outlook.2021.05.004

Mirza, N., Manankil-Rankin, L., Prentice, D., Hagerman, L.-A., & Draenos, C. (2019). Practice readiness of new nursing graduates: A concept analysis. *Nurse Education in Practice*, *37*, 68–74. https://doi.org/10.1016/j.nepr.2019.04.009

Montague, J., Phillips, E., Holland, F., & Archer, S. (2020). Expanding hermeneutic horizons: Working as multiple researchers and with multiple participants. *Research Methods in Medicine & Health Sciences*, *1*(1), 25–30. https://doi.org/10.1177/2632084320947571

Morin, K. H. (2020). Nursing education after COVID-19: Same or different? *Journal of Clinical Nursing*, *29*(17–18), 3117–3119. https://doi.org/10.1111/jocn.15322

Morse, C. J., Fey, M., Kardong-Edgren, S., Mullen, A., Barlow, M., & Barwick, S. (2019). The changing landscape of simulation-based education. *American Journal of Nursing*, *119*(8), 42–48. https://doi.org/10.1097/01.naj.0000577436.23986.81

Nasir, M. A. M., Janikowski, T., Guyker, W., & Wang, C. C. (2020). Modifying the student course engagement questionnaire for use with online courses. *Journal of Educators Online*, *17*(1), n1.

National Academy of Medicine. (2021). *The future of nursing 2020–2030: Charting a path to achieve health equity*. The National Academies Press. https://doi.org/10.17226/25982

National Council of State Boards of Nursing. (2020). Changes in education requirements for nursing programs during COVID-19. https://www.ncsbn.org/Education-Requirement-Changes_COVID-19.pdf. Accessed May1, 2021.

National Council of State Boards of Nursing. (2021). *Policy brief: U.S. nursing leadership supports practice/academic partnerships to assist the nursing workforce during the COVID-19 crisis*. https://www.ncsbn.org/public-files/PolicyBrief_US_Nursing_Leadership_COVID19_updated.pdf

National Council of State Boards of Nursing. (2022). 2022 NCLEX Pass Rates. https://www.ncsbn.org/1237.htm

National Council of State Boards of Nursing. (2023). The NCSBN 2023 environmental scan: Nursing at a crossroads—An opportunity for action. *Journal of Nursing Regulation*, *13*(4S), S1–S48. https://doi.org/10.1016/S2155-8256(23)00006-6

Office of the Assistant Secretary for Planning and Evaluation. (2022). *Impact of the COVID-19 Pandemic on the hospital and outpatient clinical workforce: Challenges and policy responses*. U.S. Department of Health and Human Services. https://aspe.hhs.gov/sites/default/files/documents/9cc72124abd9ea25d58a22c7692dccb6/aspe-covid-workforce-report.pdf

Padilha, J. M., Machado, P. P., Ribeiro, A., Ramos, J., & Costa, P. (2019). Clinical virtual simulation in nursing education: A randomized controlled trial. *Journal of Medical Internet Research*, *21*(3), Article e11529. https://doi.org/10.2196/11529

Rovai, A. P., Wighting, M. J., Baker, J. D., & Grooms, L. D. (2009). Development of an instrument to measure perceived cognitive, affective, and psychomotor learning in traditional and virtual classroom higher education settings. *The Internet and Higher Education*, *12*(1), 7–13. https://doi.org/10.1016/j.iheduc.2008.10.002

Proclamation No. 9994, 85 F.R. 15337 (2020, March 13). Declaring a national emergency concerning the novel coronavirus disease (COVID–19) outbreak. Retrieved from: https://www.govinfo.gov/content/pkg/FR-2020-03-18/pdf/2020-05794.pdf

Sacco, T. L., & Kelly, M. M. (2021). Nursing faculty experiences during the COVID-19 pandemic response. *Nursing Education Perspectives, 42*(5), 285–290. https://doi.org/10.1097/01.nep.0000000000000843

Seymour-Walsh, A. E., Bell, A., Weber, A., & Smith, T. (2020). Adapting to a new reality: COVID-19 coronavirus and online education in the health professions. *Rural and Remote Health, 20*(2), Article 6000. https://doi.org/10.22605/RRH6000

Smiley, R. A. (2019). Survey of simulation use in prelicensure nursing programs: Changes and advancements, 2010–2017. *Journal of Nursing Regulation, 9*(4), 48–61. https://doi.org/10.1016/S2155-8256(19)30016-X

Smith, S. M., Buckner, M., Jessee, M. A., Robbins, V., Horst, T., & Ivory, C. H. (2021). Impact of COVID-19 on new graduate nurses' transition to practice: Loss or gain? *Nurse Educator, 46*(4), 209–214. https://doi.org/10.1097/nne.0000000000001042

Soria, K. M., Chirikov, I., & Jones-White, D. (2020). The obstacles to remote learning for undergraduate, graduate, and professional students. SERU Consortium. University of California Berkeley and University of Minnesota.

Spector, N. M., Buck, M., & Phipps, S. (2021). A new framework for practice–academic partnerships during the pandemic—And into the future. *American Journal of Nursing, 121*(12), 39–44. https://doi.org/10.1097/01.naj.0000803192.68710.8f

Spector, N., Silvestre, J., Alexander, M., Martin, B., Hooper, J. I., Squires, A., & Ojemeni, M. (2020). NCSBN regulatory guidelines and evidence-based quality indicators for nursing education programs. *Journal of Nursing Regulation, 11*(2S), S1–S64. https://doi.org/10.1016/S2155-8256(20)30075-2

Spence, D. G. (2005). Hermeneutic notions augment cultural safety education. *Journal of Nursing Education*, *44*(9), 409–414. https://doi.org/10.3928/01484834-20050901-05

Stucky, C. H., Brown, W. J., & Stucky, M. G. (2021, January). COVID 19: An unprecedented opportunity for nurse practitioners to reform healthcare and advocate for permanent full practice authority. In Nursing Forum (Vol. 56, No. 1, pp. 222-227).

Sullivan, N., Swoboda, S. M., Breymier, T., Lucas, L., Sarasnick, J., Rutherford-Hemming, T., Budhathoki, C., & Kardong-Edgren, S. (2019). Emerging evidence toward a 2:1 clinical to simulation ratio: A study comparing the traditional clinical and simulation settings. *Clinical Simulation in Nursing, 30, 34–41.* https://doi.org/10.1016/j.ecns.2019.03.003

Taylor, C., Angel, L., Nyanga, L., & Dickson, C. (2017). The process and challenges of obtaining and sustaining clinical placements for nursing and allied health students. *Journal of Clinical Nursing*. 26(19-20), 3099–3110. https://doi.org/10.1111/jocn.13658

Thomas, C. M., Bantz, D. L., & McIntosh, C. E. (2019). Nurse faculty burnout and strategies to avoid it. *Teaching and Learning in Nursing, 14*(2), 111–116. https://doi.org/10.1016/j.teln.2018.12.005

Tinôco, J. D. d. S., Cossi, M. S., Fernandes, M. I. d. C. D., Paiva, A. C., Lopes, M. V. d. O., & Lira, A. L. B. d. C. (2021). Effect of educational intervention on clinical reasoning skills in nursing: A quasi-experimental study. *Nurse Education Today*, *105*, Article 105027 https://doi.org/10.1016/j.nedt.2021.105027

van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. State University of New York Press.

Walters, G., Hoffart, N., Kring, D., Whitley, T., Horne, L., & Almotairy, M. (2022). Work readiness of newly licensed RNs. *JONA: The Journal of Nursing Administration*, *52*(9), 469–473. https://doi.org/10.1097/NNA.0000000000001184

Waxman, K. T., Bowler, F., Forneris, S. G., Kardong-Edgren, S., & Rizzolo, M. A. (2019). Simulation as a nursing education disrupter. *Nursing Administration Quarterly*, *43*(4), 300–305. https://doi.org/10.1097/naq.0000000000000369

Yedidia, M. J., Chou, J., Brownlee, S., Flynn, L., & Tanner, C. A. (2014). Association of faculty perceptions of work–life with emotional exhaustion and intent to leave academic nursing: Report on a national survey of nurse faculty. *Journal of Nursing Education*, *53*(10), 569–579. https://doi.org/10.3928/01484834-20140922-03

Appendix

A1. Initial Outreach Program Survey

Dear Colleagues:

The following survey will take 5- 10 minutes to complete. All results will be reported in the aggregate and no identifying information will be disseminated or reported in any way. We very much appreciate your participation in the survey.

Sincerely,

Brendan Martin, PhD | Associate Director, Research | bmartin@ncsbn.org

National Council of State Boards of Nursing (NCSBN) | 111 E. Wacker Drive, Ste. 2900, Chicago, IL

www.ncsbn.org

1. **Please indicate below which prelicensure nursing programs your school offers:**
   - ○ Traditional Bachelor of Science in Nursing (BSN)
   - ○ Accelerated BSN (students with a non-nursing undergraduate degree)
   - ○ Associate's Degree in Nursing (ADN)
   - ○ Diploma
   - ○ Other *(please specify)* _____

2. **Please provide your traditional BSN or ADN program enrollment information:**
   - ○ Fall 2019 enrollment: _____
   - ○ Estimated fall 2020 enrollment: _____

3. **Does your school use standardized exams to measure student performance?**
   - ○ Yes
   - ○ No

3a. **[If 3. = Yes} Does your school use standardized exams to measure student performance?**
   - ○ ATI
   - ○ HESI
   - ○ Other *(please specify)* _____

3b. **[If 3. = Yes} When do you administer them?**
   - ○ At the end of each nursing course.
   - ○ A comprehensive exam is administered at the end of the entire nursing program.
   - ○ Both

Clinical Course Curriculum

The following items focus on the percentage of clinical hours offered through simulation.

4. **With regard to your clinical courses, what percentage of clinical hours were completed in simulation during the fall 2019 semester and what percentage of clinical hours in simulation are anticipated during the fall 2020 semester.**

   During the fall 2019 semester, the percentage of clinical hours in simulation was:

   0 10 20 30 40 50 60 70 80 90 100

   During the fall 2020 semester, the percentage of clinical hours in simulation are anticipated as:

   0 10 20 30 40 50 60 70 80 90 100

5. **With regard to your clinical courses, do you plan to offer virtual simulation instruction (e.g. computer-based simulation, virtual reality, virtual simulation, virtual reality simulation, augmented reality, etc...) during the fall 2020 semester?**
   - ○ Yes
   - ○ No

5a. **[If 5. = Yes] WWith regard to your clinical courses, what percentage of clinical hours were completed in virtual simulation during the fall 2019 semester and what percentage of clinical hours in virtual simulation are anticipated during the fall 2020 semester.**

   During the fall 2019 semester, the percentage of clinical hours in virtual simulation was:

   0 10 20 30 40 50 60 70 80 90 100

   During the fall 2020 semester, the percentage of clinical hours in virtual simulation are anticipated as:

   0 10 20 30 40 50 60 70 80 90 100

5b. **[If 5a. % is 1 > 0] Please elaborate on which virtual tools, or instruments you will be using to evaluate students' learning outcomes:**

   _____
   _____
   _____
   _____
   _____

Didactic course curriculum

The next questions are related to the percentage of online instruction associated with your didactic course curriculum.

6. **With regard to your didactic (lecture-style) courses, what percentage of the didactic curriculum was completed online prior during the fall 2019 semester, and what percentage is anticipated to be completed online during the fall 2020 semester.**

During the fall 2019 semester, the percentage of lecture hours completed online.

0   10   20   30   40   50   60   70   80   90   100

During the fall 2020 semester, the anticipated percentage of lecture hours completed online.

0   10   20   30   40   50   60   70   80   90   100

Study Outline

We are interested in investigating the effect of increased simulation, and screen-based tools within the nursing curriculum. More specifically, we hope to build on previous studies, and compare students' outcomes at varying levels of simulation, and online education.

7. **Are you interested in potentially participating in a multi-site longitudinal survey-based study about how the Coronavirus (COVID-19) pandemic has impacted BSN/ADN program instructional format and student outcomes?**
    ○ Yes
    ○ No

Survey Completion and Follow-up

Thank you for your interest in the study. Please provide the necessary contact information below to facilitate further outreach.

7a. **{If 7. = Yes} Please share the contact information of the most appropriate program personnel to discuss details of the study, including eligibility criteria and incentives for participation:**
Name _____
E-mail _____
Phone _____
Institution _____
City _____
State _____

7b. **{If 7. = Yes} Please indicate the start date of your Fall 2020 term below in the following format (mm/dd/yyyy):**
____ / ____ / _____

8. **Do you have any questions or concerns?**
_____
_____
_____
_____

A2. Study Induction Survey

Assessing the Impact of the COVID-19 Pandemic on Nursing Education: A National Study of Prelicensure RN Programs

Institutional Questionnaire

This questionnaire will be used to gather information about your (1) school or program, (2) faculty, (3) curriculum, and (4) student population. Please review each item and respond as appropriate.

If you have any questions regarding this questionnaire, please feel free to reach out to us at research@ncsbn.org. We thank you for taking the time to complete this questionnaire.

School or Program Characteristics

1. **Please describe your institution below:**
    Full name of program _____
    Mailing address of program _____
    City _____
    State _____
    County _____

2. **What best describes the program's geographic location?**
    ○ Urban
    ○ Suburban (not rural and not within the core city boundaries)
    ○ Rural
    ○ Other (please describe)

3. **Is the nursing program nationally accredited?**
    ○ Yes
    ○ No

4. **In what year (yyyy format)* was the [nursing] program founded?**
    * Year the nursing program started (might be different than the year the college/university was founded.) _____

5. **Is your institution publicly or privately funded ?**
    ○ Public
    ○ Private, not-for-profit
    ○ Private, for-profit

5a. **What is the yearly in-state tuition rate for your program?**
    (Please use only numbers and commas to denote tuition, e.g. 67,000 refers to $67,000)
    _____

5b. **What is the yearly out-of-state tuition rate for your program?**
    (Please use only numbers and commas to denote tuition, e.g. 67,000 refers to $67,000)
    _____

5c. **What is the yearly tuition rate for your program?**
    (Please use only numbers and commas to denote tuition, e.g. 67,000 refers to $67,000)
    _____

6. **Does your program have any satellite sites?**
    ○ Yes
    ○ No

Faculty Information

7. **Number of full-time (1.0 FTE) faculty:**
    _____

8. **Number of part-time (<1.0 FTE) faculty (excluding adjunct clinical faculty):**
    _____

9. **Number of adjunct clinical faculty:**
    _____

Education

10. **What best describes the program's academic schedule?**
    A quarter system divides the academic year into four sessions. A trimester divides the academic year into three sessions. A semester system divides the academic year into two sessions.
    ○ Quarters
    ○ Trimesters
    ○ Semesters
    ○ Other *(please describe)* _____

11. **How many clinical hours do students complete before graduation?**
    _____

12. **How many clinical rotations are completed in one term?**
    ○ 1
    ○ 2
    ○ 3 or more

12a. **For the fall 2020 term, please indicate when (in mm/dd/yy format):**
    the first rotation ends: _____
    the second rotation begins: _____
    the second rotation ends: _____
    the third rotation begins: _____
    the third rotation ends: _____
    Provide additional dates as needed: _____
    _____

12b. **For the fall 2020 term, please indicate when (in mm/dd/yy format):**
    The term begins: ___ /___ /___
    The term ends: ___ /___ /___

13. **When comparing the fall 2020 term, to the previous fall 2019 term, has your institution found it more difficult or easier to obtain clinical placements for your prelicensure students?**
    ○ Much more difficult
    ○ Somewhat more difficult
    ○ Similar level of difficulty
    ○ Somewhat easier
    ○ Much easier

13a. If you have found it more difficult to obtain clinical placements in Fall 2020 relative to the previous term, what actions have you taken (please check all that apply):
- ○ Delay graduation
- ○ Increase the number of clinical hours completed in simulation
- ○ Decrease the number of clinical hours a course normally has
- ○ Lengthen the term
- ○ Contact the appropriate state board of nursing (BON)
- ○ Other (please specify) _____
- ○ None of these

14. Please specify the number of students to one clinical faculty member*.
(* All levels of faculty (full-time, part-time, and clinical adjunct) in all types of clinical experiences.)

_____

15. If your program is transitioning to a higher proportion of online education, and/or clinicals completed in simulation or virtual simulation, have you received additional resources to support your transition?
- ○ Yes
- ○ No
- ○ We are maintaining similar levels of online education and clinicals completed in simulation

15a. Please indicate which resources your program has received below: (check all that apply)
- ○ Additional funds
- ○ Formal training
- ○ Materials or instructional guides
- ○ Other (please specify) _____

16. As it relates to education, what challenges do you anticipate for your program during the fall 2020 term?

_____
_____
_____
_____
_____

17. With regard to completing clinicals in virtual simulation, which (if any) of the following tools have faculty utilized?
- ○ Watching videos
- ○ Faculty perform simulations with instructions from students who view them from a screen in another location
- ○ Augmented reality, with technology like Google Glasses
- ○ Augmented reality, with multidimensional computer screens
- ○ Online software packages, such as web-based branching narratives, where students make decisions
- ○ Other (please explain) _____

_____
_____

- ○ None of these.

Student Population

18. Please provide the number of students currently enrolled with an anticipated graduation of spring 2022:

_____

19. For the class graduating in 2022, please estimate the percentage of students who identify as ethnically Hispanic:
Please type the percentage as a whole number (e.g. 67 refers to 67%)

_____

20. Please estimate the distribution of students based on race for the class graduating in 2022:
Type each category as a percentage (e.g. 67, refers to 67%).
All groups should sum to 100.
American Indian or Alaskan Native _____
Asian _____
Black/African American _____
Native Hawaiian or Other Pacific Islander
_____
Middle Eastern/North African _____
White _____
Two or more races _____
Other _____

21. Please estimate the distribution of students based on sex for the class graduating in 2022:
Type each category as a percentage (e.g. 67, refers to 67%).
All groups should sum to 100.
Female _____
Male _____

**Thank you for completing the Institutional Questionnaire.**

B1. Initial Student Consent and Demographic Questionnaire

1. **Age:** _____

2. **Sex:**
   - ○ Female
   - ○ Male
   - ○ Other
   - ○ Prefer not to say

3. **Are you of Hispanic or Latino origin?**
   - ○ Yes
   - ○ No

4. **What is your race? (Select all that apply)**
   - ○ American Indian or Alaska Native
   - ○ Asian
   - ○ Black/African American
   - ○ Native Hawaiian or Other Pacific Islander
   - ○ Middle Eastern/North African
   - ○ White/Caucasian
   - ○ Other _____

5. **Have you accepted a Pell grant?**
   - ○ Yes
   - ○ No

B2. Cognitive, Affective, and Psychomotor (CAP) Perceived Learning Scale

Student Name: _____

Course Title: _____

Course Number: _____

Instructor: _____

Using the scale, please respond to each statement below as it specifically relates to your experience in this course.

Not at all (0)   (1)   (2)   (3)   (4)   (5)   (6) Very much so

1. I can organize course material into a logical structure.	
2. I cannot produce a course study guide for future students.	
3. I am able to use physical skills learned in this course outside of class.	
4. I have changed my attitudes about the course subject matter as a result of this course.	
5. I can intelligently critique the texts used in this course.	
6. I feel more self-reliant as the result of the content learned in this course.	
7. I have not expanded my physical skills as a result of this course.	
8. I can demonstrate to others the physical skills learned in this course.	
9. I feel that I am a more sophisticated thinker as a result of this course.	

Note: Negatively worded items were reverse scored. Scores can range from a low of 0 to a high of 6 for each item.

B3. Student Course Engagement Questionnaire Modified (SCEQ-M)

Student Name: _____

Course Title: _____

Course Number: _____

Instructor: _____

The course taken (select one):
○ Fully on-campus
○ Fully online

To what extent do the following behaviors, thoughts, and feelings describe you in this course? Please rate each of them on the following scale:

(1) not at all characteristic of me
(2) not really characteristic of me
(3) moderately characteristic of me
(4) characteristic of me
(5) very characteristic of me

#	Item	
1.	Raising my hand or answering questions in class	
2.	Participating actively in small group or discussion board discussions	
3.	Asking questions when I don't understand the instructor	
4.	Doing all the homework problems	
5.	Coming to class every day or logging on to the class webpage regularly	
6.	Going to the professor's office hours or contacting him/her to review assignments or tests or to ask questions	
7.	Thinking about the course between class meetings	
8.	Finding ways to make the course interesting to me	
9.	Taking good notes in class	
10.	Looking over class notes between classes to make sure I understand the material	
11.	Really desiring to learn the material	
12.	Being confident that I can learn and do well in the class	
13.	Putting forth effort	
14.	Being organized	
15.	Getting a good grade	
16.	Doing well on the tests	
17.	Staying up on the readings	
18.	Having fun in class	
19.	Helping fellow students	
20.	Making sure to study on a regular basis	
21.	Finding ways to make the course material relevant to my life	
22.	Applying course material to my life	
23.	Listening carefully in class or carefully reading online course discussion posts	

B4. Student Clinical Learning Environment Comparison Survey (CLECS) 2.0

Course Title:_____
Course Number:_____

Course (check one):
- ○ Fundamentals of Nursing
- ○ Adult Medical-Surgical Nursing
- ○ Advanced Medical-Surgical Nursing
- ○ Maternal-Newborn Nursing
- ○ Care of Children
- ○ Mental Health
- ○ Community Health

Semester:
- ○ Fall 2020
- ○ Spring 2021
- ○ Summer 2021
- ○ Fall 2021
- ○ Spring 2022

This survey will assess how well your learning needs have been met throughout this course in traditional clinical, simulated clinical, and virtual clinical environments.

Please take the time to fully complete the survey. The table contains a list of learning needs and three rating sections. In each of the three sections, please circle the number corresponding to how well each learning need was met in the specified clinical environment. The choices range from "well met" (4) to "not met" (1). If the statement does not apply to any of your personal experiences, circle NA (not applicable).

Learning need	Section I: Traditional clinical environment					Section II: Face-to-face simulated clinical environment					Section III: Screen-based simulation environment				
	Well Met	Met	Partly Met	Not Met	Not applicable	Well Met	Met	Partly Met	Not Met	Not applicable	Well Met	Met	Partly Met	Not Met	Not applicable
Preparing to care for patient	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Understanding patient's pathophysiology	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Understanding rationale for patient's treatment plan	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Identifying patient's problems	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Identifying short-and long-term goals for the patient	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Interacting with patient	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Communicating with interdisciplinary team	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Providing Information and support to patient's family	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Performing appropriate patient assessment	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Prioritizing patient's care	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Implementing patient's care plan	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Evaluating the effects of medications administered to the patient	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Assessing outcomes of the care provided to the patient	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Discussing patient's psychosocial needs	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Discussing patient's development.al needs	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Discussing patient's spiritual needs	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Discussing patient's cultural needs	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Anticipating and recognizing changes in patient's condition	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Taking appropriate action when patient's condition changes	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Reacting calmly to changes in my patient's condition	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Knowing what to do if I make an error in my patient care	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Being confident in my decisions	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Feeling confident in my abilities	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Improving my critical thinking skills	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Having instructor available to me	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Feeling supported by instructor and peers when making care related decisions	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Feeling challenged and stimulated	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA
Receiving immediate feedback on performance	4	3	2	1	NA	4	3	2	1	NA	4	3	2	1	NA

C1. Didactic Precourse Faculty Questionnaire

Name: _____

Course Title: _____

Course Number: _____

1. **Age:** _____

2. **Sex:**
   ○ Female
   ○ Male
   ○ Other
   ○ Prefer not to say

3. **Are you of Hispanic or Latino origin?**
   ○ Yes
   ○ No

4. **What is your race? (Select all that apply)**
   ○ American Indian or Alaska Native
   ○ Asian
   ○ Black/African American
   ○ Native Hawaiian or Other Pacific Islander
   ○ Middle Eastern/North African
   ○ White/Caucasian
   ○ Other

5. **Years of experience as a registered nurse:** _____

6. **Years of teaching experience (total):**
   _____

7. **Current position held:**
   ○ Professor
   ○ Associate Professor
   ○ Assistant Professor
   ○ Instructor
   ○ Adjunct Faculty
   ○ Other, please specify: _____

8. **Highest degree held:**
   ○ Baccalaureate
   ○ Master's
   ○ Post-master's
   ○ Doctorate
   ○ Postdoctorate

9. **Do you have experience teaching online courses?**
   ○ Yes
   ○ No

10. **Years of experience teaching online courses (total):** _____

11. **What best describes the instructional format of the course you will be teaching?**
    ○ In person only
    ○ Hybrid
    ○ Completely online

12. **Did you teach this course during the fall 2019 semester (please choose one):**
    ○ Yes
    ○ No

13. **[If 12. = Yes] Please describe the course delivery format in fall 2019 (please choose one):**
    ○ Entirely online
    ○ In person
    ○ Hybrid (both online and in person)

14. **Course delivery format anticipated for the fall 2020 semester (please choose one):**
    ○ Entirely online
    ○ In person
    ○ Hybrid (both online and in person)

15. **[If 14. = Hybrid] If your course is a hybrid course, please estimate the percentage of the course that will be offered:**
    Online: _____%
    In person: _____%

16. **[If 14. = Entirely online or hybrid] If your course has an online component, will you complete your lectures in synchronous (real-time) or asynchronous (pre-recorded) format (please choose one)?**
    ○ Synchronous
    ○ Asynhronous
    ○ A mixture of both

17. **[If 14. = Entirely online or hybrid] If your course has an online component, how would you rate your familiarity with teaching courses online:**
    ○ (1) Not all familiar
    ○ (2) Somewhat familiar
    ○ (3) Moderately familiar
    ○ (4) Extremely familiar

18. **How many courses have you taught online?** _____

19. **[If 14. = Entirely online or hybrid] If your course has an online component, has your institution provided materials or resources to assist in your transition:**
    ○ (1) No, none at all
    ○ (2) Some materials
    ○ (3) Sufficient resources
    ○ (4) A great deal of resources

20. **[If 19. ≠ No, none at all] Please rate the usefulness of the materials provided:**
    ○ (1) Not all useful
    ○ (2) Somewhat useful
    ○ (3) Moderately useful
    ○ (4) Extremely useful

21. **[If 13. ≠ 14.] If the delivery model for your course has changed, please discuss how you prepared for your course:**
    _____
    _____
    _____
    _____

22. **What challenges do you anticipate teaching this course during the fall 2020 semester?**
    _____
    _____
    _____
    _____
    _____

C2. Didactic Postcourse Faculty Questionnaire

Name: _____

Course Title: _____

Course Number: _____

1. **Did the anticipated format of your course switch during instruction due to the COVID-19 pandemic (e.g., originally planned to offer in-person course, but during the semester switched to a hybrid format) (please choose one):**
   - ○ Yes
   - ○ No

2. **[If 1. = Yes] If your course format switched, please describe your course delivery format (please choose one):**
   - ○ Mostly online
   - ○ In person
   - ○ Hybrid (both online and in person).

3. **[If 2. = Hybrid] If your course switched to a hybrid course, please estimate the percentage of the course that was offered:**
   Online: _____%
   In person: _____%

4. **[If 2. = Entirely online or hybrid, OR Pre-survey 3. = Online or Hybrid] If your course maintained or switched to an online component, did you complete your lectures in either synchronous (real-time) or asynchronous (pre-recorded) formats (please choose one)?**
   - ○ Synchronous
   - ○ Asynchronous
   - ○ A mixture of both

5. **[If 2. = Entirely Online, Hybrid, OR Pre-survey 3. = Online, Hybrid] If your course maintained or switched to an online component estimate the percentage of lectures were completed:**
   Synchronously (real-time) _____%
   Asynchronously (pre-recorded) _____%
   In person (if applicable) _____%

6. **In terms of engagement, how would you rate your students during the fall 2020 course (engagement refers to students' attention, curiosity, interest, and passion) (please choose one)?**
   - ○ Not at all engaged
   - ○ Somewhat engaged
   - ○ Generally engaged
   - ○ Very engaged

7. **[If Pre-survey = 12. = Yes] Were students in your fall 2020 course more or less engaged, relative to students enrolled in your fall 2019 course (please choose one)?**
   - ○ Much less
   - ○ Less
   - ○ No change
   - ○ More
   - ○ Much more

8. **In terms of your students' quality of work, how would you rate your students during the fall 2020 semester (please choose one)?**
   - ○ Very low
   - ○ Low
   - ○ Neither good nor bad
   - ○ Good
   - ○ Very good

9. **[If Pre-survey 12. = Yes] Did students in your fall 2020 course produce poorer or higher quality work relative to students enrolled in your fall 2019 course?**
   - ○ Much poorer
   - ○ Poorer
   - ○ About the same
   - ○ Better
   - ○ Much better

10. **In terms of meeting learning outcomes, how would you rate your students enrolled in the fall 2020 course (please choose one)?**
    - ○ Did not meet learning outcomes
    - ○ Partially met learning outcomes
    - ○ Met learning outcomes
    - ○ Exceeded learning outcomes.

11. **[If Pre-Survey 12. = Yes] Did students in your fall 2020 course meet more or fewer learning outcomes than students enrolled in your fall 2019 course?**
    - ○ Much fewer
    - ○ Fewer
    - ○ No change
    - ○ More
    - ○ Much more

12. **How would you rate your quality of instruction overall:**
    - ○ Very poor
    - ○ Poor
    - ○ Acceptable
    - ○ Good
    - ○ Very good

13. **[If Pre-survey 12. = Yes] How would you rate your quality of instruction this semester relative to the fall 2019 iteration of the course (please select):**
    - ○ Much poorer
    - ○ Poorer
    - ○ No change
    - ○ Better
    - ○ Much better

14. **What challenges did you face?**
    _____
    _____
    _____
    _____

15. **What challenges did your students face?**
    _____
    _____
    _____
    _____

16. **Based on your experience teaching the course this term, what changes might you implement in future course offerings?**
    _____
    _____
    _____
    _____

C3. Creighton Competency Evaluation Instrument (CCEI)

Course Title:_____

Course Number:_____

Student Name:_____

Student Email: _____

1. Course (check one):
- ○ Fundamentals of Nursing
- ○ Adult Medical-Surgical Nursing
- ○ Advanced Medical-Surgical Nursing
- ○ Maternal-Newborn Nursing
- ○ Care of Children
- ○ Mental Health
- ○ Community Health

2. This observation was conducted in which of the following settings?
- ○ Clinical setting
- ○ Simulation
- ○ Virtual Simulation

Creighton Competency Evaluat ion Instrument (CCEI)

0= Does not demonstrate competency
1= Demonstrates competency
NA= Not applicable
(Circle Appropriate Score for all
Applicable Criteria)

Date: _____/_____/_____
MM/DD/YYYY

Assessment			
Obtains Pertinent Data	0	1	NA
Performs Follow-Up Assessments as Needed	0	1	NA
Assesses the Environment in an Orderly Manner	0	1	NA
Communication			
Communicates Effectively with Intra/Interprofessional Team (TeamSTEPPS, SBAR, Written Read Back Order)	0	1	NA
Communicates Effectively with Patient and Significant Other (verbal, nonverbal, teaching)	0	1	NA
Documents Clearly, Concisely, & Accurately	0	1	NA
Responds to Abnormal Findings Appropriately	0	1	NA
Promotes Professionalism	0	1	NA
Clinical Judgment			
Interprets Vital Signs (T, P, R, BP, Pain)	0	1	NA
Interprets Lab Results	0	1	NA
Interprets Subjective/Objective Data (recognizes relevant from irrelevant data)	0	1	NA
Prioritizes Appropriately	0	1	NA
Performs Evidence Based Interventions	0	1	NA
Provides Evidence Based Rationale for Interventions	0	1	NA
Evaluates Evidence Based Interventions and Outcomes	0	1	NA
Reflects on Clinical Experience	0	1	NA
Delegates Appropriately	0	1	NA
Patient Safety			
Uses Patient Identifiers	0	1	NA
Utilizes Standardized Practices and Precautions Including Hand Washing	0	1	NA
Administers Medications Safely	0	1	NA
Manages Technology and Equipment	0	1	NA
Performs Procedures Correctly	0	1	NA
Reflects on Potential Hazards and Errors	0	1	NA

Select one of the following:
- ○ Clinical
- ○ Simulation-initial scenario
- ○ Simulation-repeated scenario

If not applicable, circle NA.
If not applicable, no score is given.

Earned Score = _____

Comments

C4. Clinical Course Faculty Precourse Faculty Questionnaire

Name: _____

Course Title: _____

Course Number: _____

1. **Age:** _____

2. **Sex:**
   - ○ Female
   - ○ Male
   - ○ Other
   - ○ Prefer not to say

3. **Are you of Hispanic or Latino origin?**
   - ○ Yes
   - ○ No

4. **What is your race? (Select all that apply)**
   - ○ American Indian or Alaska Native
   - ○ Asian
   - ○ Black/African American
   - ○ Native Hawaiian or Other Pacific Islander
   - ○ Middle Eastern/North African
   - ○ White/Caucasian
   - ○ Other

5. **Years of experience as a registered nurse:** _____

6. **Years of teaching experience (total):**
   _____

7. **Current position held:**
   - ○ Professor
   - ○ Associate Professor
   - ○ Assistant Professor
   - ○ Instructor
   - ○ Adjunct Faculty
   - ○ Other, please specify

8. **Highest degree held:**
   - ○ Baccalaureate
   - ○ Master's
   - ○ Post-master's
   - ○ Doctorate
   - ○ Postdoctorate

9. **Is any part of this clinical course being offered using simulation?**
   - ○ Yes
   - ○ No

10. **[If Yes to simulation] Is the clinical course using high fidelity simulation?**
    - ○ Yes
    - ○ No

11. **[If Yes to simulation] Please estimate the proportion of this clinical course that will be offered using simulation:**
    - ○ Simulation: _____%
    - ○ Clinical Setting: _____%

12. **[If Yes to simulation] Please select the statement(s) that describe(s) your experiences with simulation (select all that apply).**
    - ○ I have no experience with simulation
    - ○ I have observed students in simulation
    - ○ I have run simulation scenarios with a medium or high-fidelity manikin
    - ○ I have debriefed students after simulation scenarios
    - ○ I have assessed/rated students who have participated in simulation scenarios
    - ○ I have written simulation scenarios
    - ○ I have participated in formal simulation training

13. **[If Yes to simulation] Years of simulation experience (total):** _____

14. **[If Yes to simulation] Are you CHSE [Certified Healthcare Simulation Edcuator] certified?**
    - ○ Yes
    - ○ No

15. **[If Yes to simulation] Is any part of the simulation being offered virtually?**
    - ○ Yes
    - ○ No

16. **[If Yes to virtual] How does your program utilize virtual simulation for your clinical courses?**
    - ○ Watch videos
    - ○ Faculty perform simulations with instructions from students who view them from a screen in another location
    - ○ Augmented reality, with technology like Google Glasses
    - ○ Augmented reality, with multidimensional computer screens
    - ○ Online software packages, such as screen- or computer-based branching narratives, where students make decisions
    - ○ Other (please explain) _____
    _____

17. **[If Yes to virtual] Please estimate the proportion of this clinical course that will be offered using simulation:**
    Simulation: _____%
    Virtual Simulation: _____ %
    Clinical Setting: _____%

18. **[If Yes to virtual] Have you taught this clinical course virtually prior to the fall 2020 term?**
    - ○ Yes
    - ○ No

19. **[If Yes to virtual] Please select the statement(s) that describe(s) your experiences with virtual simulation (select all that apply).**
    - ○ I have no experience with virtual simulation
    - ○ I have observed students in virtual simulation
    - ○ I have run virtual simulation scenarios
    - ○ I have debriefed students after virtual simulation scenarios
    - ○ I have assessed/rated students who have participated in virtual simulation scenarios
    - ○ I have written virtual simulation scenarios
    - ○ I have participated in formal virtual simulation training

C5. Clinical Faculty Postcourse Faculty Questionnaire

Name: _____

Course Title:_____

Course Number:_____

1. **Did the anticipated format of your course switch during instruction due to the COVID-19 pandemic (e.g. historically offered in person, but during the term switched to a simulated or virtually simulated format) (please choose one):**
   ○ Yes
   ○ No

1a. **[If 1. = Yes] If your course format switched, please describe your course delivery format (please choose one):**
   ○ Mix of clinical setting and simulated clinical scenarios
   ○ Mix of clinical setting and virtually simulated clinical scenarios
   ○ Mix of clinical setting, simulated, and virtually simulated clinical scenarios

1b. **[If 1. = Yes] If your course switched to a hybrid format, please estimate the proportion of the course that was offered:**
   Simulation: _____%
   Virtual simulation: _____ %
   Clinical setting: _____%

2. **In terms of engagement, how would you rate your students during the Fall 2020 course (engagement refers to students' attention, curiosity, interest, and passion) (please choose one)?**
   ○ Not at all engaged
   ○ Somewhat engaged
   ○ Generally engaged
   ○ Very engaged

3. **Were students in your fall 2020 course more or less engaged relative to students enrolled in your fall 2019 course (please choose one)?**
   ○ Much less
   ○ Less
   ○ No change
   ○ More
   ○ Much more

4. **In terms of your students' performance, how would you rate your students during the fall 2020 semester (please choose one)?**
   ○ Very low
   ○ Low
   ○ Neither good nor bad
   ○ Good
   ○ Very good

5. **Did students in your fall 2020 course produce poorer or higher quality work relative to students enrolled in your fall 2019 course?**
   ○ Much poorer
   ○ Poorer
   ○ About the same
   ○ Better
   ○ Much better

6. **In terms of meeting learning outcomes, how would you rate your students enrolled in the fall 2020 course (please choose one)?**
   ○ Did not meet learning outcomes
   ○ Partially met learning outcomes
   ○ Met learning outcomes
   ○ Exceeded learning outcomes.

7. **Did students in your fall 2020 course meet more or fewer learning outcomes than students enrolled in your fall 2019 course?**
   ○ Much fewer
   ○ Fewer
   ○ No change
   ○ More
   ○ Much more

8. **How would you rate your quality of instruction overall:**
   ○ Very poor
   ○ Poor
   ○ Acceptable
   ○ Good
   ○ Very good

9. **How would you rate your quality of instruction this semester relative to prior iterations of the course (please select):**
   ○ Much poorer
   ○ Poorer
   ○ No change
   ○ Better
   ○ Much better

10. **What challenges did you face?**
   _____
   _____
   _____
   _____

11. **What challenge did your students face?**
   _____
   _____
   _____
   _____

12. **Based on your experience teaching the course this term, what changes might you implement in future course offerings?**
   _____
   _____
   _____
   _____

New Graduate Nurse Performance

Section 1: Demographic Questions

1. **When did you become licensed as a registered nurse?**
   ___ / ___ (mm/yy)

2. **Which of the following best describes the location of your employment setting?**
   ○ Urban/metropolitan
   ○ Suburban
   ○ Rural

3a. **Which of the following best describes the type of institution in which you work?**
   ○ Hospital/Medical center
   ○ Long-term care facility
   ○ Community-based or ambulatory setting (e.g., physician office, public health clinic, home health, school, prison, etc.)
   ○ Other, please describe:

3b. **If you work in a hospital or medical center, does the facility currently have Magnet designation?**
   ○ Yes
   ○ No
   ○ Unsure
   ○ Not applicable

4. **Which of the following best describes the type of patient care environment in which you work? (Select one)**
   ○ Critical care (ICU, CCU, step-down units, emergency department)
   ○ Medical-Surgical unit Specialty:
   _____
   ○ Pediatrics or nursery
   ○ Labor & delivery or postpartum
   ○ Psychiatry
   ○ Operating room or post-anesthesia care unit
   ○ long-term care facility (nursing home, rehab, residential care)
   ○ Ambulatory/Outpatient care (physician's office)
   ○ Home health/Home hospice
   ○ Other, please specify: _____

5. **What is your job title?**
   _____

6. **Are you working in the job of your first choice?**
   ○ Yes
   ○ No

7. **On average, how many hours do you work in a typical week?**
   _____ hours

8. **On average, how many hours do you work in a typical shift?**
   _____ hours

9. **Which of the following best describes your current work schedule? (Select one)**
   ○ Day (7am-3pm)
   ○ Day {9am-Spm)
   ○ Day {12-hour shift) D Evening {3pm-11pm)
   ○ Night (11pm-7am)
   ○ Night (12-hour shift)
   ○ Rotating
   ○ Other: _____

10. **Over the last week, what was the average number of patients each shift you were assigned to provide direct patient care?** _____

11. **In your opinion, over the las1 week your patient care assignments have been:**
   ○ Not challenging enough
   ○ Just right
   ○ Too challenging or difficult

12a. **Have you worked as a charge nurse?**
   ○ Yes
   ○ No

12b. **When did you start unsupervised charge nurse responsibilities?**
   __ / __ (mm/yy)
   ○ Not applicable

Orientation/Transition to Practice

A nurse residency program is a formal program of support, mentoring and orientation to the role of the professional nurse. The residency program supports the new graduate nurse as they transition from the educational program to the role of the professional nurse.

13a. **Are you in a nurse residency or transition to practice program at your facility?**
   ○ Yes
   ○ No (skip to question 14)

13b. **When did your nurse residency/transition to practice program begin?**
   __/__ (mm/yy)

13c. **When did your nurse residency/transition to practice program end?**
   __/__ (mm/yy)
   ○ Still ongoing
   Orientation is the process of introducing staff to the philosophy, goals, policies, procedures, and role expectations needed to function in a specific work setting.

14. **How long was your unit orientation? (Select one)**
   ○ Still ongoing
   ○ ≤ 4weeks
   ○ 5-8 weeks
   ○ 9-12weeks
   ○ 13-16weeks
   ○ 17-23 weeks
   ○ 24+ weeks

Section 2: New Graduate Nurse Performance Survey

For the items below, rate your level of satisfaction with your proficiency in the following areas.

I am satisfied with my proficiency in the following areas:	Strongly disagree (1)	Disagree (2)	Tend to disagree (3)	Tend to agree (4)	Agree (5)	Strongly agree (6)	Not applicable (NA)
Clinical Knowledge							
Understanding of the principles of evidence-based practice	1	2	3	4	5	6	NA
Knowledge of pathophysiology of patient conditions	1	2	3	4	5	6	NA
Knowledge of pharmacological implications of medications	1	2	3	4	5	6	NA
Interpretation of physician and interprofessional orders	1	2	3	4	5	6	NA
Compliance with legal/regulatory issues relevant to nursing practice	1	2	3	4	5	6	NA
Understanding of quality improvement methodologies	1	2	3	4	5	6	NA
Technical Skills							
Conducting patient assessments (including history, physical examination, and vital signs)	1	2	3	4	5	6	NA
Documentation of patient assessment data	1	2	3	4	5	6	NA
Conducting clinical procedures (e.g., s1erile dressing, intravenous therapy, etc.)	1	2	3	4	5	6	NA
Utilization of clinical technologies {e.g., smart pumps, medical monit0ts, etc.}	1	2	3	4	5	6	NA
Administration of medication	1	2	3	4	5	6	NA
Utilization of information technologies {e.g., computers, electronic medical records, etc.)	1	2	3	4	5	6	NA
Critical Thinking							
Recognition of changes in patient status	1	2	3	4	5	6	NA
Ability to anticipate risk	1	2	3	4	5	6	NA
Interpretation of assessment data {e.g., history, examination, laboratory testing, etc.)	1	2	3	4	5	6	NA
Decision making-based on the nursing process	1	2	3	4	5	6	NA
Recognition of when to ask for assistance	1	2	3	4	5	6	NA
Recognition of unsafe practices by self and others	1	2	3	4	5	6	NA
Communication							
Rapport with patients and families	1	2	3	4	5	6	NA
Communication with interprofessional team	1	2	3	4	5	6	NA
Communication with physicians	1	2	3	4	5	6	NA
Patient education	1	2	3	4	5	6	NA
Conflict resolution	1	2	3	4	5	6	NA
Patient advocacy	1	2	3	4	5	6	NA
Professionalism							
Ability to work independently	1	2	3	4	5	6	NA
Ability to work as part of a team	1	2	3	4	5	6	NA
Ability to accept constructive criticism	1	2	3	4	5	6	NA
Customer service	1	2	3	4	5	6	NA
Accountability for actions	1	2	3	4	5	6	NA
Respect for diverse cultural perspective	1	2	3	4	5	6	NA
Management of Responsibilities							
Ability to keep track of multiple responsibilities	1	2	3	4	5	6	NA
Ability to prioritize	1	2	3	4	5	6	NA
Delegation of tasks	1	2	3	4	5	6	NA
Completion of individual tasks within expected timeframe	1	2	3	4	5	6	NA
Ability to take initiative	1	2	3	4	5	6	NA
Conducting appropriate follow-up	1	2	3	4	5	6	NA

Please rate your satisfaction with your overall performance in each category.

Overall Performance	Strongly disagree (1)	Disagree (2)	Tend to disagree (3)	Tend to agree (4)	Agree (5)	Strongly agree (6)
Clinical Knowledge	1	2	3	4	5	6
Technical Skills	1	2	3	4	5	6
Critical Thinking	1	2	3	4	5	6
Communication	1	2	3	4	5	6
Professionalism	1	2	3	4	5	6
Management of Responsibilities	1	2	3	4	5	6

15. **A component of clinical competency relates to potential and actual errors. An error is defined as an incident or occurrence that resulted in harm to the patient. A near miss is defined as an event or situation that did not produce patient injury, but only because of chance. You may have been involved as the one making an error, the supervisor of someone who made an error, or as the one discovering an error made by others. Since starting your current position have you been involved in any errors or near misses? (Select all that apply)**
   ○ Yes, I had a near-miss
   ○ Yes, I have made an error(s)
   ○ Yes, I have supervised someone who has made an error(s) or had a near miss
   ○ Yes, I have discovered an error(s) made by others
   ○ I have no knowledge of errors made at my institution

16. **If you have been involved in an error(s) or near miss, which of the following types of incidents have taken place? (Select all that apply)**
   ○ Medication error
   ○ Inadequate monitoring or follow-up
   ○ Delay in treatment
   ○ Patient fall
   ○ Other, please describe: _____

Critical Thinking Diagnostic

For the items below, rate your level of agreement with the following statements.

	Strongly disagree (1)	Disagree (2)	Tend to disagree (3)	Tend to agree (4)	Agree (5)	Strongly agree (6)	Not applicable (NA)
Problem Recognition							
Accurately anticipates changes in patient status	1	2	3	4	5	6	NA
Accurately recognizes changes in patient status	1	2	3	4	5	6	NA
Consistently recognizes unsafe practices by self and others	1	2	3	4	5	6	NA
Proactively voices concerns about unsafe practices by self and others	1	2	3	4	5	6	NA
Proactively identifies unit- or hospital-based improvement opportunities	1	2	3	4	5	6	NA
Clinical Decision Making							
Effectively explores multiple solutions to a given problem	1	2	3	4	5	6	NA
Consistently demonstrates understanding of rationale for following (or departing from) established protocols and policies	1	2	3	4	5	6	NA
Consistently demonstrates understanding of potential clinical implications of interventions	1	2	3	4	5	6	NA
Proactively asks peers and experts for assistance when needed	1	2	3	4	5	6	NA
Proactively consults further resources (e.g., literature, evidence-based tools, etc.) to improve patient care	1	2	3	4	5	6	NA
Prioritization							
Appropriately prioritizes the most urgent patients	1	2	3	4	5	6	NA
Appropriately sequences care for an individual patient	1	2	3	4	5	6	NA
Appropriately sequences indirect care responsibilities across the shift	1	2	3	4	5	6	NA
Appropriately delegates responsibilities	1	2	3	4	5	6	NA
Consistently demonstrates accountability for delegated responsibilities	1	2	3	4	5	6	NA

The 2022 National Nursing Workforce Survey

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Advancing nursing excellence for public protection

The 2022 National Nursing Workforce Survey

Background: Every two years, the National Council of State Boards of Nursing (NCSBN) and the National Forum of State Nursing Workforce Centers (Forum) conduct the only national-level survey focused on the entire U.S. nursing workforce. The survey generates data on the supply of registered nurses (RNs) and licensed practical nurses/licensed vocational nurses (LPNs/LVNs). These data are especially crucial in providing information on emerging nursing issues, which in 2022, was the impact of the (COVID-19) pandemic on the nursing workforce. **Purpose:** To provide data critical to planning for enough adequately prepared nurses and ensuring a safe, diverse, and effective healthcare system. **Methods:** This study used a mixed-mode approach, involving mailing a national, randomized sample survey to licensed RNs and LPNs/LVNs in most jurisdictions, supplemented by a national, randomized sample survey emailed to licensed RNs and LPNs/LVNs in four jurisdictions and data from the e-Notify nurse licensure notification system for five jurisdictions. Data from RN and LPN/LVN respondents were collected between April 11, 2022, and September 30, 2022. Data included nurse demographics, educational attainment, employment, practice characteristics, and trends. **Results:** The total number of active RN and LPN/LVN licenses in the United States were 5,239,499 and 973,788, respectively. The median age of RNs was 46 years and 47 years for LPNs/LVNs, which reflects a decrease of 6 years for each cohort from the 2020 data. This decline was associated with estimated losses to the workforce of at least 200,000 experienced RNs and 60,000 experienced LPNs/LVNs. An average of 89% of all nurses who maintain licensure are employed in nursing with roughly 70% working full-time. Hospitals and nursing/extended care facilities continue to be the primary practice setting for RNs and LPNs, respectively. Increased proportions of male and Hispanic/Latino nurses have introduced greater racial diversity in the nursing workforce. The nursing workforce is becoming increasingly more educated with more than 70% of RNs holding a baccalaureate degree or higher. More than one-quarter of all nurses report that they plan to leave nursing or retire over the next 5 years. Increased demand from the COVID-19 pandemic and inflation led nursing incomes to rise significantly across the country. Nurses were also specifically asked how the COVID-19 pandemic impacted them, and more than 60% of all nurses reported an increase in their workload because of the pandemic. **Conclusion:** In the wake of the COVID-19 pandemic, the nursing workforce has undergone a dramatic shift with the loss of hundreds of thousands of experienced RNs and LPNs/LVNs. The nursing workforce has become younger and more diverse with increases reflected for Hispanic/Latino and male nurses. An increasing proportion of the RN workforce holds a baccalaureate degree or higher, moving closer to goals established by the National Academy of Medicine. Salaries have notably increased for nurses, likely due to inflation and increased demand for nursing services. With a quarter of the population contemplating leaving the profession, the impact of the pandemic may still be felt in the future.

Keywords: U.S. nursing workforce, nursing demographics, nursing education, nursing licensure, nursing employment, nursing diversity, telehealth, COVID-19 pandemic.

The National Council of State Boards of Nursing (NCSBN) has collaborated with the National Forum of State Nursing Workforce Centers (Forum) to conduct the National Nursing Workforce Survey since 2013. The 2022 survey added questions pertaining to the COVID-19 pandemic and travel nursing. Data are comparable to the 2013, 2015, 2017, and 2020 datasets, which facilitated trend analyses. This study is the only continuous national, randomized survey of this size specifically focused on nurses, and it is the only comprehensive and updated study that includes registered nurses (RNs) as well as licensed practical nurses/licensed vocational nurses (LPNs/LVNs). The evidence generated from the National Nursing Workforce Survey fills a critical gap in supply-side information about nurses in the United States.

Demographics

In the wake of the COVID-19 pandemic, the nursing workforce has undergone a dramatic shift, with many older nurses opting to leave the profession. In 2020, nurses aged 55 years or older accounted for 43% of the RN workforce and 42% of the LPN/LVN workforce. In 2022, this same age cohort accounted for 31% of RNs and 30% of LPNs/LVNs. This decline was associated with estimated losses to the workforce of at least 200,000 experienced RNs and 60,000 experienced LPNs/LVNs.

The losses in the experienced workforce have been somewhat offset by gains in the lowest age ranges. In 2020, nurses aged 29 years or younger accounted for 8% of the RN workforce and 7% of the LPN/LVN workforce. In 2022, this same age cohort accounted for 11% of RNs and 10% of LPNs/LVNs. This increase was associated with estimated gains to the workforce of 130,000 RNs and 16,000 LPNs/LVNs.

The workforce in 2022 is more demographically diverse and representative of the country's population than in any year in which this study was previously conducted. Women continue to account for a large majority of nurses; however, the proportion of men licensed as RNs or LPNs/LVNs in the country has increased steadily since at least 2015. Currently, men account for 11% of the RN workforce, an increase from 8% in 2015. Though less pronounced, the same pattern holds true for the proportion of men in the LPN/LVN workforce.

RNs are more likely to report identifying as an underrepresented racial minority. Overall, the RN workforce is 80% White/Caucasian, a slight decrease from 81% in 2020. In contrast, 72% of the U.S. population identifies as White/Caucasian (U.S. Census Bureau, 2020). RNs who reported being of Hispanic or Latino ethnicity comprised 7% of the workforce in 2022, whereas in 2015 they represented 4% of the workforce. It is unclear whether this increase in diversity will continue. After years of decline, the proportion of RNs identifying as White/Caucasian in the youngest age ranges has risen back to the level of the overall population mean.

LPNs/LVNs are also more likely to report identifying as an underrepresented racial minority. Overall, the LPN/LVN workforce is 66% White/Caucasian, a decrease from 70% in 2020. LPNs/LVNs who reported being of Hispanic or Latino ethnicity comprised 12% of the workforce in 2022, an increase from 6% in 2015. As with the RN workforce, the proportion of LPNs/LVNs identifying as White/Caucasian in the youngest age ranges has risen back to the level of the overall population mean.

Employment

Since the onset of the COVID-19 pandemic, nursing employment has jumped significantly. Reporting data suggest an estimated 89% of RNs who maintain licensure are employed in nursing; among these nurses, 70% work full time, 11% work part time, and about 8% work per diem shifts. This is an increase from the 84% who reported working in nursing in 2020. Likewise, the 88% of LPNs/LVNs who reported being employed in nursing in 2022 was an increase over the 82% of LPNs/LVNs who did so in 2020.

Despite these gains, the COVID-19 pandemic may still have an impact on future employment. Survey data indicate that 28% of all nurse respondents plan to retire in the next 5 years, an increase from the 21% who responded positively in 2020.

Hospitals continue to be the primary practice setting for RNs, followed by the ambulatory care setting, home health, and nursing homes. The primary practice setting for LPNs/LVNs is nursing homes/ extended care settings followed by hospitals and nursing homes. In comparison to 2020, increased proportions of RNs and LPNs/LVNs reported providing direct patient care in their jobs.

Education

In the 2022 survey, the educational accomplishment of RNs increased with more than 70% of the workforce holding a baccalaureate degree or higher. The proportion of LPNs/LVNs holding an associate degree or higher remained steady at around 16%.

There is evidence that RNs and LPNs/LVNs are continuing their nursing education after obtaining their initial nursing license. Comparing the highest level of nursing education to the educational attainment when first licensed shows that proportionally more RNs hold a baccalaureate or graduate degree than did at initial licensure (51% vs. 47%). Additionally, proportionally more LPNs/LVNs hold an associate or baccalaureate as their highest level of nursing education than at initial licensure (16% vs. 8%).

Licensure

Overall, RNs and LPNs/LVNs are less experienced now than in previous years because of the COVID-19 pandemic. The proportion of RNs with 10 or fewer years licensed jumped from 31% in 2020 to 38% in 2022, while the proportion of LPNs/LVNs with 10 or fewer years practicing rose from 37% in 2020 to 42% in 2022. As in previous years, most RNs (96%) and LPNs/LVNs (99%) obtained their initial nursing license in the United States.

Salary

Increased demand from the COVID-19 pandemic and inflation led nursing incomes to rise significantly across the country, with the median RN annual earnings increasing from $70,000 in 2020 to $80,000 in 2022 and the median LPN/LVN annual earnings rising from $44,000 in 2020 to $50,000 in 2022.

COVID-19

Nurses were also specifically asked how the COVID-19 pandemic impacted them. More than 60% of all nurses reported an increase in their workload, while 16% of RNs and 11% of LPNs/LVNs reported changing their practice settings. More than half of all nurses reported feeling "emotionally drained from work" at least a few times each week, while more than a quarter of all nurses reported feeling "like they were at the end of their rope" at least a few times each week.

Methods

Sample

A mixed-mode sampling plan was employed to capture data for the 2022 National Nursing Workforce Survey. The e-Notify nurse licensure notification system helps nurses track their licenses and discipline statuses and provides license renewal reminders. The information is provided as it is entered into the Nursys database by participating nursing regulatory bodies. After a comprehensive review of data collected through the e-Notify system, it was determined that five participating jurisdictions (Missouri, North Carolina, New Mexico, Washington, and Wyoming) had entered data of sufficient volume and quality so that a separate survey of nurses was unnecessary. Data for four jurisdictions (Alabama, New Hampshire, New York, and Rhode Island) were obtained from an email survey of the state nurse membership. Data for the remaining jurisdictions were collected through a direct mail survey that offered nurses the opportunity to respond via filling out and mailing back a paper survey (using a prepaid business reply envelope) or going online and accessing an online version of the survey.

Mailing Address Lists

For the U.S. jurisdictions and territories involved in the mailout portion of the survey, all RNs and LPNs/LVNs with an active license were eligible survey participants. A portion of the sample was drawn from Nursys, NCSBN's licensure database. This database contains basic demographic and licensure information for RN and LPN/LVN licensees. Licensee lists and addresses were obtained directly from the following boards of nursing (BONs): (a) California (LPN/LVN), (b) Colorado, (c) Hawaii, (d) Indiana, (e) Michigan, (f) Pennsylvania, (g) Utah, and (h) Wisconsin. Georgia's licensee lists and addresses were purchased from MMS, Inc. The BONs for American Samoa, Guam, and the Virgin Islands chose not to participate in this survey.

As of December 31, 2021, the total number of active RN licenses in the United States was 5,239,499, and the total number of active LPN/LVN licenses was 973,788 (NCSBN, 2022). Separate RN and LPN/LVN samples stratified by state were randomly selected from among RN and LPN/LVN licensees. Surveys were mailed to 154,757 RNs and 154,490 LPNs/LVNs. Tables 1a and 2a present the sampling by jurisdiction/state for the mailout portion of the survey. Each jurisdiction is listed with the actual number of active licenses at the time of sampling. Approximately 1,000 nurses needed to respond from each jurisdiction to construct a 95% confidence of plus or minus 3% error. To calculate the number of surveys that needed to be mailed out to reach the target survey response, response rates to the online and paper surveys from the previous 2020 survey administration were used as estimates. For example, in 2020, Alaska had a 29.1% response rate for the RN survey. Given this estimated response rate, 3,340 RNs in Alaska were selected to be survey recipients in order to receive the target of 1,000 surveys. The actual response from Alaskan RNs to the current survey (i.e., the number of responses returned) was 742, a response rate of 22.1%.

Email Lists

For the four jurisdictions in the email portion of this survey, separate RN and LPN/LVN samples stratified by state were randomly selected from among RN and LPN/LVN licensees. Surveys were emailed to 26,697 RNs and 18,710 LPNs/LVNs. Tables 1b and 2b present the sampling by jurisdiction/state for the email portion of the survey. We again targeted receiving 1,000 responses from each jurisdiction and selected up to 8,000 nurses per jurisdiction for the mailing.

e-Notify

For the five jurisdictions in the e-Notify portion, the already-collected sample information was selected and unduplicated. Tables 1c and 2c show the number of nurses who contributed data to the e-Notify system.

TABLE 1A

RN Mailout Survey Response

Jurisdiction	Number of Active RN Licenses	Number of Surveys Mailed	Undeliverable	Number Received	Number of Responses	Total Response Rate
AK	18,102	3,440	89	3,351	742	22.1%
AR	45,016	4,213	251	3,962	557	14.1%
AZ	102,364	4,765	490	4,275	656	15.3%
CA	466,414	3,858	46	3,812	664	17.4%
CO	80,946	3,762	294	3,468	585	16.9%
CT	81,242	3,676	40	3,636	665	18.3%
DC	30,222	4,252	228	4,024	538	13.4%

RN Mailout Survey Response *(continued)*

Jurisdiction	Number of Active RN Licenses	Number of Surveys Mailed	Undeliverable	Number Received	Number of Responses	Total Response Rate
DE	19,211	3,308	24	3,284	658	20.0%
FL	347,136	4,329	84	4,245	601	14.2%
GA	139,314	4,106	250	3,856	493	12.8%
HI	26,785	3,261	136	3,125	678	21.7%
IA	58,571	3,184	47	3,137	674	21.5%
ID	25,815	2,793	48	2,745	629	22.9%
IL	219,409	3,837	62	3,775	619	16.4%
IN	118,822	3,110	17	3,093	608	19.7%
KS	53,662	3,191	30	3,161	606	19.2%
KY	72,058	3,847	35	3,812	641	16.8%
LA	65,167	5,316	256	5,060	597	11.8%
MA	153,862	3,753	324	3,429	563	16.4%
MD	86,804	3,858	62	3,796	603	15.9%
ME	27,942	3,058	35	3,023	637	21.1%
MI	167,780	2,911	48	2,863	561	19.6%
MN	119,829	3,071	31	3,040	661	21.7%
MS	50,436	4,634	85	4,549	626	13.8%
MT	20,261	2,504	48	2,456	640	26.1%
ND	16,777	2,697	56	2,641	591	22.4%
NE	31,238	2,977	32	2,945	664	22.5%
NJ	139,719	5,347	43	5,304	861	16.2%
NV	51,606	4,179	99	4,080	583	14.3%
OH	220,800	3,449	28	3,421	556	16.3%
OK	52,039	3,618	49	3,569	567	15.9%
OR	73,418	3,461	62	3,399	777	22.9%
PA	232,528	3,315	42	3,273	661	20.2%
SC	77,288	4,020	87	3,933	679	17.3%
SD	19,237	2,961	26	2,935	659	22.5%
TN	110,427	4,065	54	4,011	641	16.0%
TX	363,865	4,596	79	4,517	580	12.8%
UT	40,201	3,450	89	3,361	661	19.7%
VA	112,482	3,762	42	3,720	608	16.3%
VT	20,320	3,379	46	3,333	717	21.5%
WI	111,192	2,853	110	2,743	649	23.7%
WV	33,047	3,946	21	3,925	728	18.5%
Northern Mariana Islands	3,618	645	34	611	73	11.9%
Total	4,306,972	154,757	4,059	150,698	26,757	17.8%

TABLE 1B

RN Email Survey Response

Jurisdiction	Number of Active RN Licenses	Number of Surveys Emailed	Number of Responses	Total Response Rate
AL	94,029	8,000	638	8.0%
NH	25,656	2,697	340	12.6%
NY	356,083	8,000	699	8.7%
RI	27,272	8,000	781	9.8%
Total	503,040	26,697	2,458	9.2%

TABLE 1C

RN e-Notify Data

Jurisdiction	Number of Active RN Licenses	Number of e-Notify Participants
MO	124,098	124,098
NC	149,005	28,301
NM	30,160	23,435
WA	117,351	68,199
WY	8,873	5,383
Total	429,487	249,416

Note. RN = registered nurse.

TABLE 2A

LPN/LVN Mailout Survey Response

Jurisdiction	Number of Active LPN/LVN Licenses	Number of Surveys Mailed	Undeliverable	Number Received	Number of Responses	Total Response Rate
AK	760	502	26	476	84	17.6%
AR	14,317	4,450	331	4,119	580	14.1%
AZ	10,825	5,918	778	5,140	676	13.2%
CA	106,006	5,275	73	5,202	593	11.4%
CO	8,037	4,739	533	4,206	575	13.7%
CT	13,828	4,799	77	4,722	628	13.3%
DC	2,177	1,356	104	1,252	111	8.9%
DE	3,169	2,886	42	2,844	349	12.3%
FL	61,431	4,694	68	4,626	605	13.1%
GA	29,752	2,398	299	2,099	195	9.3%
HI	1,680	1,544	63	1,481	317	21.4%
IA	10,069	3,412	70	3,342	647	19.4%
ID	3,526	3,189	91	3,098	643	20.8%
IL	25,619	4,657	84	4,573	659	14.4%
IN	22,894	3,718	74	3,644	670	18.4%
KS	9,633	3,510	71	3,439	606	17.6%
KY	12,745	4,398	55	4,343	642	14.8%
LA	21,836	4,859	104	4,755	597	12.6%
MA	19,861	4,589	579	4,010	556	13.9%

LPN/LVN Mailout Survey Response *(continued)*

Jurisdiction	Number of Active LPN/LVN Licenses	Number of Surveys Mailed	Undeliverable	Number Received	Number of Responses	Total Response Rate
MD	11,280	4,975	158	4,817	584	12.1%
ME	1,899	1,762	33	1,729	384	22.2%
MI	22,421	3,618	82	3,536	631	17.8%
MN	19,641	3,355	39	3,316	743	22.4%
MS	14,072	3,953	65	3,888	454	11.7%
MT	2,416	2,214	54	2,160	567	26.3%
ND	3,446	2,667	69	2,598	585	22.5%
NE	5,209	3,094	23	3,071	697	22.7%
NJ	23,860	5,297	69	5,228	673	12.9%
NV	4,393	3,175	156	3,019	408	13.5%
OH	53,674	4,353	93	4,260	609	14.3%
OK	15,597	4,434	86	4,348	576	13.2%
OR	6,013	4,081	88	3,993	575	14.4%
PA	52,773	3,661	72	3,589	635	17.7%
SC	12,354	4,158	100	4,058	597	14.7%
SD	2,674	2,232	46	2,186	451	20.6%
TN	30,140	4,510	68	4,442	627	14.1%
TX	105,610	5,329	164	5,165	590	11.4%
UT	2,808	2,383	43	2,340	364	15.6%
VA	27,030	5,034	81	4,953	708	14.3%
VT	2,587	1,498	14	1,484	254	17.1%
WI	15,045	2,776	106	2,670	478	17.9%
WV	7,976	5,003	89	4,914	709	14.4%
Northern Mariana Islands	48	35	1	34	2	5.9%
Total	821,131	154,490	5,321	149,169	22,634	15.2%

TABLE 2B

LPN/LVN Email Survey Response

Jurisdiction	Number of Active LPN/LVN Licenses	Number of Surveys Emailed	Number of Responses	Total Response Rate
AL	17,248	8,000	831	10.4%
NH	3,083	300	31	10.3%
NY	68,060	8,000	1,051	13.1%
RI	2,561	2,410	263	10.9%
Total	90,952	18,710	2,176	11.6%

TABLE 2C

LPN/LVN e-Notify Data

Jurisdiction	Number of Active LPN/LVN Licenses	Number of e-Notify Participants
MO	24,514	21,675
NC	22,786	2,898
NM	2,476	1,435
WA	11,062	4,270
WY	867	415
Total	61,705	30,693

Note. LPN/LVN = licensed practical nurse/licensed vocational nurse.

Survey Instrument and Materials

The survey instrument is based on the Forum's Minimum Nurse Supply Dataset (MDS), which was approved in 2009 after an intensive process of consensus-building and data compilation to collect data on the nursing workforce at the state level. The MDS was last updated by the Forum in 2016 to account for the transformations that had occurred in healthcare and nursing over the previous 7 years. Additionally, the 2022 survey instrument includes new questions about the impact of the COVID-19 pandemic and a question about travel nursing (Appendix A). The survey was a four-page Scantron fillable document with 39 questions. Data elements from the latest revision of the MDS were incorporated, resulting in the following changes to the survey between the 2020 and 2022 waves of data collection:

- Response options for the race and gender questions were updated
- A question about travel was added
- Questions about the impact of the COVID-19 pandemic were added
- The question about secondary specialty were removed.

Procedures

Mailing Address Lists

The Western Institutional Review Board granted approval for the current study. A unique identification number was generated and assigned to each sampled participant. The identification number was only used to record that the survey had been returned. This prevented unnecessary and expensive duplicate mailings to those selected to participate in the study. The unique access code identifier was also used for the online survey option. Once materials were developed and the sampling file was complete, surveys were distributed over a 20-week period starting the week of April 11, 2022, that included the following steps:

- Week 1: A cover letter and paper survey were mailed via first-class U.S. mail to all nurses selected to participate. The letter included a URL and access code to take the survey online.
- Week 10: For half of the nurses who had not responded, a cover letter reminder and paper survey were mailed via first-class U.S. mail. For the other half of the nonresponders, only the cover letter reminder was sent.
- Week 20: For nurses who still had not responded, an additional cover letter and paper survey were mailed via first-class U.S. mail.
- Week 25: Participants could submit their responses via mail or online until the survey closed on September 30, 2022. Once the survey was closed, the final data file was compiled separately for RNs and LPNs/LVNs.

At weeks 1, 10, and 20, a prepaid business reply envelope was included in the mailing. Survey response data are kept on department-secured servers. NCSBN's research staff, three key members of the Forum, and key personnel at Scantron and its strategic partner, R. R. Donnelley, had initial access to the identifiable data. Scantron no longer has access to identifiable data.

Email Lists

Beginning in April, Qualtrics surveys were emailed to the nurses selected for the email portion of the study. Follow-up reminders were sent to nonresponders on a weekly basis. Participants could submit their responses online until September 2022.

e-Notify

Data for the e-Notify portion of the survey were collected from the system in October 2022.

Nonresponse

A formal nonresponse bias analysis was conducted after the survey closed and weighting was applied in the analysis process. The weights adjust the distribution across states, age, and gender but sum to the actual number of RNs and LPNs/LVNs in the subsets of completed responses.

To create the weights, an analysis of basic demographic data (i.e., gender, age, and race/ethnicity) for all RN and LPN/LVN licensees sampled from the Nursys database was used to compare survey respondents to survey nonrespondents. Results revealed that nurses who were White/Caucasian, female, and age 55 years or older may have been slightly overrepresented in both the RN and LPN/LVN samples. Because of missing or incomplete data on race/ethnicity, only gender and age were used to make nonresponse weighting adjustments. Additionally, since sampling was stratified by state, to prevent smaller states from being overrepresented in the overall analysis, a weighting variable was constructed to adjust for differing nursing population sizes across states. A description of this process can be found in Appendix B.

Analysis

Mailing Address Lists

At the close of the survey, 26,757 of 150,698 successfully delivered RN surveys were completed and returned, yielding a response rate of 17.8%. There were 22,634 of 149,169 successfully delivered LPN/LVN surveys returned, resulting in a 15.2% response rate.

Email Lists

A total of 26,697 RNs were randomly selected for participation in the email portion of the study. The overall response rate was 9.2% or 2,458 nurses.

A total of 18,710 LPNs/LVNs were randomly selected for participation in the email portion of the study. The overall response rate was 11.6% or 2,176 nurses.

e-Notify

The data for a total of 249,416 RNs and 30,693 LPNs/LVNs were collected in the e-Notify portion of the study.

For an accurate and comprehensive view of the statistics drawn from the sample, the number of actual valid answers to each question is reported for every table. Missing data were not imputed; hence, the presented statistics represent the actual responses from participants who responded to each respective survey item. If a participant did not respond to a certain item, they were not part of the analysis for that item. Additionally, some tables display data for all responding nurse licensees while other tables display data for employed nurses. If a table is specific to nurses employed in nursing, it is explicitly stated. Many tables include bar graphs to help readers easily visualize and comprehend the data presented.

Population Estimate

For each question on the survey, the listed frequencies reflect the nonresponse weighting adjustments. For some of the questions, an additional set of frequencies are shown that displays the data scaled up to reflect estimates of the nursing population in the subgroup identified. For example, the 487,526 males reported in the 2022 column of Table 3 reflect the number of male respondents adjusted to the population level of the number of RNs after the nonresponse weighting adjustments were made to the survey results and after adjusting the population number to account for nurses having licenses in multiple states.

Registered Nurse Results

Demographics

Gender

Respondents were asked to identify their gender. From 2015 through 2022, the percentage of male nurses grew from 8.0% to 11.2% while the percentage of female nurses decreased from 92.0% to 88.5%. The 2020 and 2022 surveys included a response option of "other" and "nonbinary," respectively. In 2020 and 2022, this third response option represented 0.1% and 0.3% of responses, respectively. The percentage of respondents answering the question is converted to frequency data (as in all subsequent tables) of the entire U.S. RN population in the second half of Table 3.

TABLE 3

Gender Distribution of Registered Nurses (RNs), 2015–2022

Gender	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	N = 43,330.9		N = 48,084.9		N = 41,698.8		N = 273,894.8	
Male	3,459.6	8.0	4,369.3	9.1	3,915.2	9.4	30,555.8	11.2
Female	39,871.4	92.0	43,715.5	90.9	37,739.9	90.5	242,508.4	88.5
Nonbinary	-	-	-	-	43.6	0.1	830.6	0.3
U.S. RN Population								
Male	277,542	8.0	354,453	9.1	391,141	9.4	487,526	11.2
Female	3,198,650	92.0	3,546,321	90.9	3,770,336	90.5	3,869,290	88.5
Nonbinary	-	-	-	-	4,356	0.1	13,252	0.3

Note. "Other" was added as a response option with the 2020 survey and was renamed "nonbinary" in 2022.

Age

In 2015, the largest percentage of RNs were aged 55 to 59 years (13.6%). In 2017 and 2020, the largest percentage of RNs were aged 65 years or older (14.6% and 19.0%, respectively). In 2022, the largest percentage of RNs were tied between the age group of 30 to 34 years and 65 years or older (13.2%). While older nurses are remaining in the workforce, we are making headway on increasing younger nurses in the profession (Table 4 and Figure 1).

TABLE 4

Age Distribution of Registered Nurses (RNs), 2015–2022

Age, y	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	N = 41,258.6		N = 47,527.3		N = 39.899.2		N = 261,161.4	
18–29	3,905.2	9.5	4,594.5	9.7	3,349.5	8.4	29,085.6	11.1
30–34	4,098.0	9.9	4,762.8	10.0	3,792.0	9.5	34,393.8	13.2
35–39	3,928.1	9.5	4,390.6	9.2	4,006.2	10.0	30,170.4	11.6
40–44	4,200.7	10.2	4,356.7	9.2	3,645.9	9.1	27,756.4	10.6
45–49	4,398.2	10.7	5,250.7	11.1	3,956.5	9.9	27,855.5	10.7
50–54	4,724.8	11.5	4,914.9	10.3	4,191.6	10.5	30,514.5	11.7
55–59	5,622.4	13.6	5,834.4	12.3	4,502.0	11.3	23,695.5	9.1
60–64	5,254.9	12.7	6,489.8	13.7	4,884.2	12.2	23,272.9	8.9
≥65	5,126.3	12.4	6,932.9	14.6	7,571.3	19.0	34,416.9	13.2
U.S. RN Population								
18–29	313,291	9.5	372,716	9.7	334,626	8.4	464,070	11.1
30–34	328,759	9.9	386,374	10.0	378,833	9.5	548,763	13.2
35–39	315,127	9.5	356,175	9.2	400,232	10.0	481,378	11.6
40–44	337,000	10.2	353,430	9.2	364,237	9.1	442,861	10.6
45–49	352,843	10.7	425,953	11.1	395,267	9.9	444,442	10.7
50–54	379,041	11.5	398,712	10.3	418,754	10.5	486,867	11.7
55–59	451,051	13.6	473,303	12.3	449,764	11.3	378,068	9.1
60–64	421,574	12.7	526,468	13.7	487,947	12.2	371,326	8.9

Age Distribution of Registered Nurses (RNs), 2015–2022 *(continued)*

Age, y	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
≥65	411,256	12.4	562,414	14.6	756,397	19.0	549,131	13.2

FIGURE 1

Age Distribution of Registered Nurses (RNs)
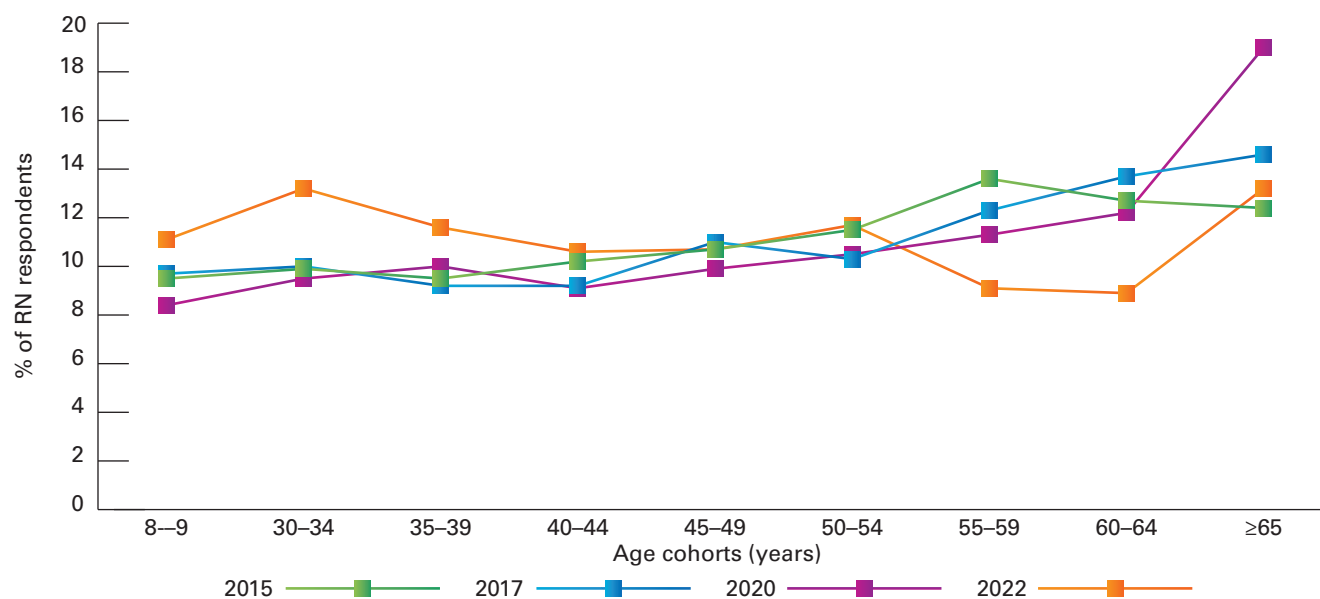
Age by Gender

The distribution of female RNs was relatively flat across all age cohorts. Interestingly, the largest cohort of female nurses was the oldest age group (≥65 years). This was markedly different than the male and nonbinary genders where the age distribution skewed toward younger age groups (Table 5).

TABLE 5

Age Distribution of Registered Nurses by Gender, 2022

Age, y	Male (*n* = 28,706.0)		Female (*n* = 230,260.0)		Nonbinary (*n* = 778.6)		Total (*N* = 259,744.0)	
	n	%	*n*	%	*n*	%	*n*	%
18–29	3,154.1	11.0	25,562.1	11.1	244.0	31.3	28,960.2	11.1
30–34	4,547.1	15.8	29,554.6	12.8	144.4	18.6	34,246.1	13.2
35–39	3,552.2	12.4	26,220.4	11.4	144.8	18.6	29,917.5	11.5
40–44	3,427.7	11.9	24,164.3	10.5	23.2	3.0	27,615.2	10.6
45–49	3,313.7	11.5	24,309.7	10.6	79.6	10.2	27,703.0	10.7
50–54	3,795.9	13.2	26,545.9	11.5	16.6	2.1	30,358.4	11.7
55–59	2,390.2	8.3	21,103.8	9.2	60.7	7.8	23,554.7	9.1
60–64	2,091.9	7.3	21,034.5	9.1	20.7	2.7	23,147.0	8.9
≥65	2,433.1	8.5	31,764.5	13.8	44.6	5.7	34,242.3	13.2

Race/Ethnicity

From 2017 to 2022, those who identified as White/Caucasian decreased from 80.8% to 80%. Nurses who reported being Asian decreased from 7.5% to 7.4%. Nurses who responded as Black/African American increased from 6.2% to 6.3%. The multiracial category increased over the same time from 1.7% to 2.5% (Table 6).

TABLE 6

Race of Registered Nurses (RNs), 2017–2022

Race	2017		2020		2022	
	n	%	*n*	%	*n*	%
RN Survey Respondents	*N* = 47,966.3		*N* = 41,702.0		*N* = 272,713.6	
American Indian or Alaska Native	176.0	0.4	194.1	0.5	1,209.8	0.4
Asian	3,605.6	7.5	2,996.3	7.2	20,036.9	7.4
Black/African American	2,995.9	6.2	2,800.7	6.7	17,273.7	6.3
Native Hawaiian or Other Pacific Islander	226.3	0.5	175.9	0.4	1,136.9	0.4
Middle Eastern/North African	-	-	89.4	0.2	-	-
White/Caucasian		80.8	33,595.1	80.6	218,133.9	80.0
Other		2.9	967.7	2.3	8,133.1	3.0
More than one race category selected	828.5	1.7	882.8	2.1	6,789.3	2.5
U.S. RN Population						
American Indian or Alaska Native	14,276	0.4	19,391	0.5	19,303	0.4
Asian	292,497	7.5	299,340	7.2	319,695	7.4
Black/ African American	243,032	6.2	279,799	6.7	275,607	6.3
Native Hawaiian or Other Pacific Islander	18,362	0.5	17,573	0.4	18,139	0.4
Middle Eastern/North African	-	-	8,931	0.2	-	-
White/Caucasian	3,144,812	80.8	3,356,257	80.6	3,480,388	80.0
Other	110,960	2.9	96,676	2.3	129,766	3.0
More than one race category selected	67,214	1.7	88,195	2.1	108,325	2.5

Note. Respondents were asked to select all that apply. The responses were subsequently recoded to ensure that the race categories were mutually exclusive. Respondents selecting multiple race categories were reclassified into the "more than one race category selected" category.

Hispanic/Latino Origin

Respondents were asked to identify whether they were of Hispanic/Latino origin. Between 2015 and 2022, the percentage of RNs identifying as Hispanic or Latino increased from 3.6% to 6.9%. The frequency numbers represented by these percentages increased from 136,707 in 2015 to 299,640 in 2022 (Table 7).

TABLE 7

Hispanic or Latino Ethnicity of Registered Nurses (RNs), 2015–2022

Ethnicity	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	*N* = 45,989.3		*N* = 47,852.6		*N* = 41,483.3		*N* = 271,920.8	
Hispanic or Latino origin	1,654.0	3.6	2,528.1	5.3	2,335.9	5.6	18,780.0	6.9
Not of Hispanic or Latino origin	44,335.3	96.4	45,324.5	94.7	39,147.4	94.4	253,140.8	93.1
U.S. RN Population								
Hispanic or Latino origin	136,707	3.6	205,088	5.3	233,364	5.6	299,640	6.9
Not of Hispanic or Latino origin	3,556,764	96.4	3,676,844	94.7	3,910,949	94.4	4,038,933	93.1

Note. In the 2015 surveys, the Hispanic/Latino ethnicity and race categories were combined into one question. The categories were separated beginning with the 2017 survey.

Race/Ethnicity by Gender

Male RNs tend to be more racially diverse than their female colleagues. For instance, about 81% of female RNs identify as White/Caucasian, while 74% of their male colleagues identified as such. Also, male RNs identified as Asian (11.7%) almost twice as often as female RNs (6.8%) (Table 8).

TABLE 8

Race of Registered Nurses by Gender, 2022

Race	Male (n = 30,223.1)		Female (n = 240,368.0)		Nonbinary (n = 821.3)		Total (N = 271,412.0)	
	n	%	*n*	%	*n*	%	*n*	%
American Indian or Alaska Native	118.0	0.4%	1,074.7	0.5%	13.0	1.6%	1,205.7	0.4%
Asian	3,534.8	11.7%	16,322.1	6.8%	64.1	7.8%	19,921.0	7.3%
Black/African American	1,704.8	5.6%	15,377.2	6.4%	38.5	4.7%	17,120.6	6.3%
Native Hawaiian or other Pacific Islander	172.2	0.6%	927.5	0.4%	14.9	1.8%	1,114.7	0.4%
White/Caucasian	22,396.1	74.1%	194,534.0	80.9%	455.7	55.5%	217,386.0	80.1%
Other	1,324.1	4.4%	6,413.4	2.7%	184.9	22.5%	7,922.4	2.9%
More than one race category selected	973.0	3.2%	5,718.6	2.4%	50.2	6.1%	6,741.8	2.5%

Note. Respondents were asked to select all that apply, and responses were subsequently recoded to ensure that the race categories were mutually exclusive. Respondents who selected multiple race categories were reclassified into the "more than one race category selected" category.

Race by Age

While younger RNs tend to be more racially diverse than older nurses, the youngest two cohorts (age groups 18–29 years and 30–34 years) are less diverse than those in slightly older cohorts. RNs between the ages of 35 and 54 years are the most diverse of all age groups (Table 9).

TABLE 9

Race Distribution of Registered Nurses by Age Group, 2022

Age, y	*n*	*n* (%)						
		American Indian or Alaska Native	Asian	Black/ African American	Native Hawaiian or other Pacific Islander	White/ Caucasian	Other	More than one race
18–29	28,826.5	71.6 (0.3)	1,977.4 (6.9)	947.9 (3.3)	149.8 (0.5)	23,551.0 (81.7)	1,083.6 (3.8)	1,045.3 (3.6)
30–34	34,200.6	71.0 (0.2)	3,008.1 (8.8)	1,731.2 (5.1)	176.3 (0.5)	27,125.9 (79.3)	915.2 (2.7)	1,173.0 (3.4)
35–39	29,832.4	215.5 (0.7)	2,952.7 (9.9)	1,756.1 (5.9)	180.5 (0.6)	22,842.8 (76.6)	1,028.3 (3.5)	856.6 (2.9)
40–44	27,513.5	115.2 (0.4)	2,369.0 (8.6)	1,856.0 (6.8)	57.9 (0.2)	21,330.7 (77.5)	1,150.3 (4.2)	634.5 (2.3)
45–49	27,728.2	203.1 (0.7)	2,237.1 (8.1)	2,448.1 (8.8)	181.1 (0.7)	21,311.8 (76.9)	685.2 (2.5)	662.0 (2.4)
50–54	30,356.1	185.0 (0.6)	3,203.3 (10.6)	2,117.7 (7.0)	132.4 (0.4)	23,267.9 (76.7)	912.4 (3.0)	537.4 (1.8)
55–59	23,513.9	109.2 (0.5)	1,115.1 (4.7)	1,745.0 (7.4)	40.6 (0.2)	19,462.0 (82.8)	657.8 (2.8)	384.2 (1.6)
60–64	23,116.1	85.6 (0.4)	872.0 (3.8)	1,381.0 (6.0)	57.7 (0.3)	19,663.4 (85.1)	564.7 (2.4)	491.8 (2.1)
≥65	34,214.0	136.5 (0.4)	1,183.0 (3.5)	1,951.2 (5.7)	16.0 (0.1)	29,863.7 (87.3)	563.4 (1.7)	500.3 (1.5)
Total	259,301.0	1,192.6 (0.5)	18,917.4 (7.3)	15,934.1 (6.1)	992.3 (0.4)	208,419.0 (80.4)	7,560.9 (2.9)	6,284.8 (2.4)

Note. Respondents were asked to select all that apply, and responses were subsequently recoded to ensure that the race categories were mutually exclusive. Respondents who selected multiple race categories were reclassified into the "More than one race" category.

Education

Type of Nursing Degree or Credentials for First U.S. Nursing License

From 2015 to 2022, LPN/LVN certificates ranged from 5.3% to 6%, RN diplomas decreased from 14.3% to 7.6%, associate degrees decreased from 38.5% to 35.6%, baccalaureate degrees increased from 39% to 47.2%, and master's degrees increased from 2.8% to 4.3% (Table 10 and Figure 2).

TABLE 10

Type of Nursing Degree or Credential of Registered Nurses (RNs) for First U.S. Nursing License, 2015–2022

Nursing Degree or Credential	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	N = 45,758.5		N = 47,650.0		N = 41,383.6		N = 271,402.2	
Vocational/practical certificate	2,442.1	5.3	2,850.6	6.0	2,382.8	5.8	14,898.2	5.5
Diploma	6,539.3	14.3	5,708.1	12.0	4,581.2	11.1	20,484.5	7.6
Associate degree	17,625.9	38.5	17,332.5	36.4	15,611.5	37.7	96,490.5	35.6
Baccalaureate degree	17,853.4	39.0	19,922.7	41.8	17,313.6	41.8	127,989.8	47.2
Master's degree	1,297.9	2.8	1,836.0	3.9	1,494.5	3.6	11,539.2	4.3
U.S. RN Population								
Vocational/practical certificate	195,916	5.3	231,247	6.0	238,049	5.8	237,705	5.5
Diploma	524,607	14.3	463,060	12.0	457,676	11.1	326,836	7.6
Associate degree	1,414,020	38.5	1,406,062	36.4	1,559,638	37.7	1,539,534	35.6
Baccalaureate degree	1,432,271	39.0	1,616,186	41.8	1,729,683	41.8	2,042,113	47.2
Master's degree	104,121	2.8	148,942	3.9	149,305	3.6	184,111	4.3

FIGURE 2

Type of Nursing Degree or Credential of Registered Nurses (RNs) for First U.S. Nursing License
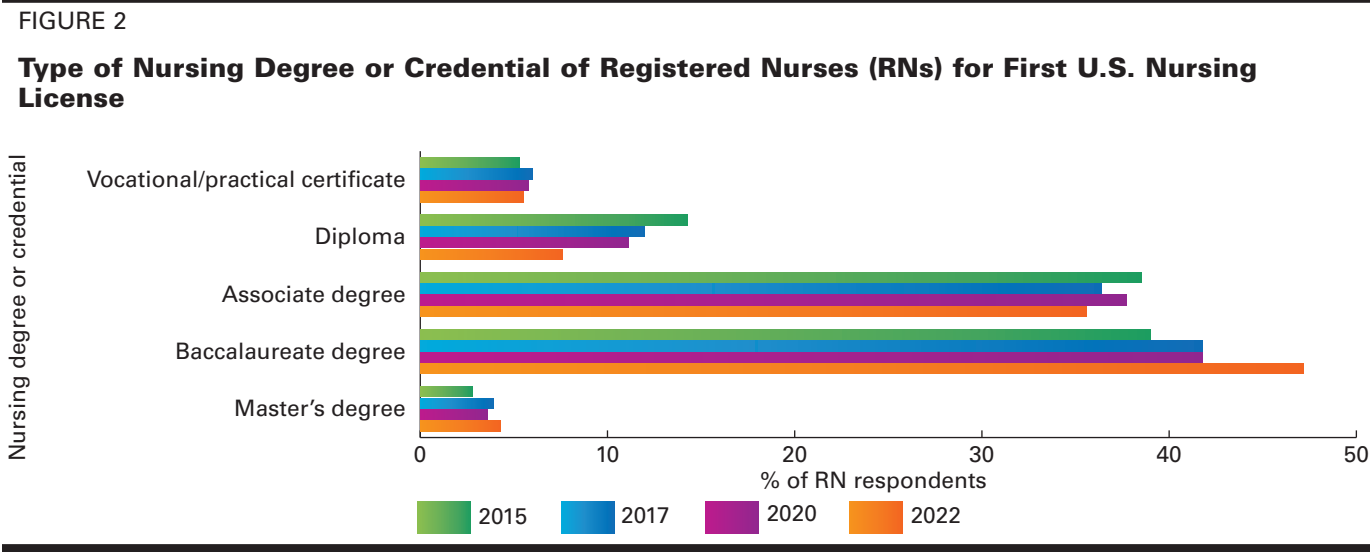
Type of Nursing Degree or Credential for First U.S. Nursing License by Age

A baccalaureate degree was the most common degree for initial U.S. licensing for nurses younger than 40 years. A diploma, associate degree, and vocational/practical certificate were more common among older nurses, with 42% of RNs aged 65 years or older holding a diploma when first licensed in the United States (Table 11).

TABLE 11

Type of Nursing Degree or Credential of Registered Nurses for First U.S. Nursing License by Age, 2022

Age, y	n (%)					
	Vocational/Practical Certificate (n = 14,146.0)	Diploma (n = 19,459.4)	Associate Degree (n = 92,062.3)	Baccalaureate Degree (n = 121,427.0)	Master's Degree (n = 10,674.1)	Total (N = 257,769.0)
18–29	646.3 (4.6)	620.7 (3.2)	6,680.4 (7.3)	20,531.2 (16.9)	436.7 (4.1)	28,915.4 (11.2)
30–34	1,355.8 (9.6)	694.4 (3.6)	10,239.8 (11.1)	20,651.1 (17.0)	1,144.0 (10.7)	34,085.1 (13.2)
35–39	1,325.0 (9.4)	626.5 (3.2)	10,136.4 (11.0)	16,171.0 (13.3)	1,486.4 (13.9)	29,745.3 (11.5)
40–44	1,852.3 (13.1)	871.9 (4.5)	10,949.2 (11.9)	12,310.6 (10.1)	1,497.7 (14.0)	27,481.7 (10.7)
45–49	2,179.0 (15.4)	1,024.2 (5.3)	11,150.6 (12.1)	11,563.8 (9.5)	1,492.6 (14.0)	27,410.2 (10.6)
50–54	1,886.7 (13.3)	2,081.2 (10.7)	11,715.8 (12.7)	12,594.3 (10.4)	1,840.1 (17.2)	30,118.0 (11.7)
55–59	1,424.6 (10.1)	2,456.4 (12.6)	9,428.2 (10.2)	8,889.3 (7.3)	1,078.6 (10.1)	23,277.1 (9.0)
60–64	1,312.6 (9.3)	2,949.8 (15.2)	9,374.8 (10.2)	8,493.1 (7.0)	814.9 (7.6)	22,945.2 (8.9)
≥65	2,163.6 (15.3)	8,134.3 (41.8)	12,387.2 (13.5)	10,222.4 (8.4)	883.2 (8.3)	33,790.7 (13.1)

Highest Level of Nursing Education

From 2015 through 2022, diplomas in nursing decreased from 9.2% to 4.1%, associate degrees decreased from 30.1% to 24.3%, baccalaureate degrees increased from 43.4% to 51.1%, master's degrees increased from 15.8% to 17.9%, doctoral degrees (PhD) remained static at 0.9%, doctor of nursing practice (DNP) degrees increased from 0.6% to 1.6%, and other nursing doctoral degrees increased slightly from 0.1% to 0.2% (Table 12 and Figure 3).

TABLE 12

Highest Level of Nursing Education of Registered Nurses, 2015–2022

Nursing Education Level	2015 (N = 38,625.9)		2017 (N = 48,140.7)		2020 (N = 41,571.5)		2022 (N = 273,272.8)	
	n	%	n	%	n	%	n	%
Diploma	3,551.3	9.2	3,547.7	7.4	2,782.8	6.7	11,124.2	4.1
Associate degree	11,608.8	30.1	13,729.1	28.5	11,683.2	28.1	66,312.1	24.3
Baccalaureate degree	16,762.5	43.4	21,744.1	45.2	19,998.5	48.1	139,614.9	51.1
Master's degree	6,085.1	15.8	8,238.3	17.1	6,200.5	14.9	49,011.8	17.9
Doctoral degree: PhD	340.2	0.9	284.1	0.6	281.2	0.7	2,345.7	0.9
Doctoral degree: DNP	239.1	0.6	551.2	1.1	569.1	1.4	4,272.7	1.6
Doctoral degree: other	39.0	0.1	46.1	0.1	56.1	0.1	591.3	0.2

Note. DNP = doctor of nursing practice. In the 2015 surveys, a single question "What is your highest level of education?" was asked with the set of possible responses including both nursing and non-nursing degrees. The degree types were separated beginning with the 2017 survey.

FIGURE 3

Highest Level of Nursing Education of Registered Nurses (RNs)
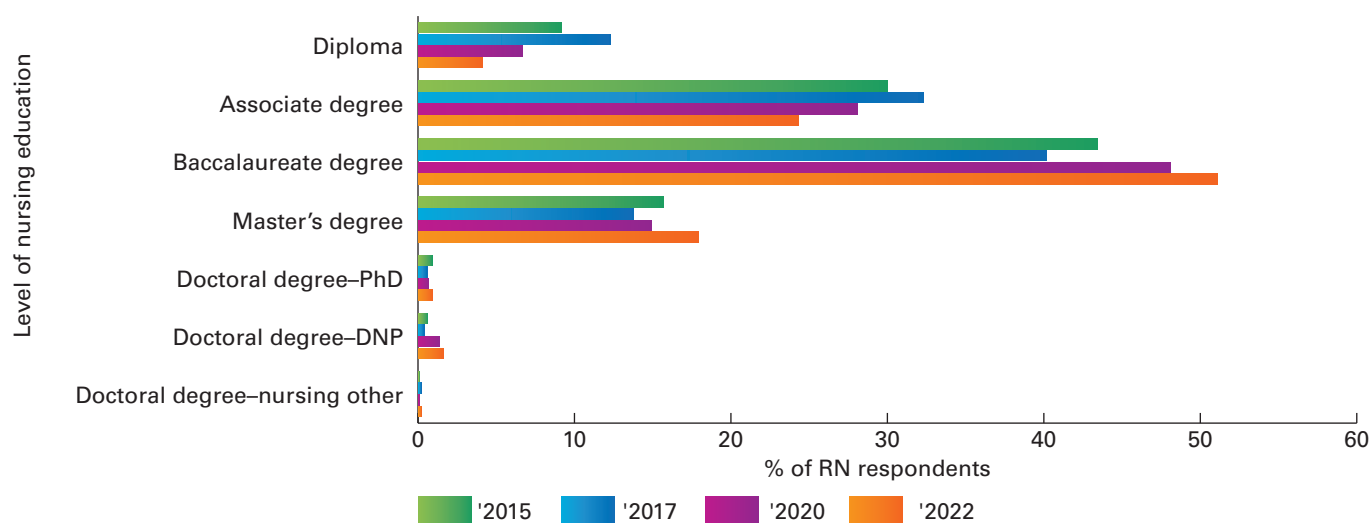
Note. DNP = doctor of nursing practice.

Highest Level of Nursing Education by Gender

Proportionally, more males were awarded doctoral degrees (PhD = 14.0% and DNP = 13.2%) relative to any other degree (Table 13).

TABLE 13

Gender of Registered Nurses by Highest Level of Nursing Education, 2022

Weighted Sample Values	Male		Female		Nonbinary		
Nursing Education Level	*n*	%	*n*	%	*n*	%	*N*
Diploma	780.7	7.1%	10,174.0	92.8%	12.3	0.1%	10,966.9
Associate degree	7,704.0	11.7%	58,073.5	88.0%	181.6	0.3%	65,959.1
Baccalaureate degree	15,639.0	11.3%	122,797.0	88.5%	398.8	0.3%	138,835.0
Master's degree	5,247.9	10.8%	43,155.7	88.8%	224.2	0.5%	48,627.8
Doctoral degree: PhD	321.7	14.0%	1,974.5	85.8%	4.9	0.2%	2,301.2
Doctoral degree: DNP	565.3	13.2%	3,703.5	86.8%	0.0	0.0%	4,268.8
Doctoral degree: other	61.5	11.3%	485.5	88.8%	0.0	0.0%	547.0
Total	30,320.1	11.2%	240,363.0	88.5%	821.9	0.3%	271,505.0

Note. DNP = doctor of nursing practice. In the 2015 surveys, a single question "What is your highest level of education?" was asked with the set of possible responses including both nursing and non-nursing degrees. The degree types were separated beginning with the 2017 survey.

Highest Level of Nursing Education by Race

The baccalaureate nursing degree was the most common highest level of education across all racial groups. For RNs identifying as Asian, about 71% reported holding a baccalaureate degree, which is the highest proportion across all racial categories. A little less than half of White/Caucasian, Black/African American, and American Indian or Alaska Native respondents held a baccalaureate degree (Table 14).

TABLE 14

Highest Level of Nursing Education of Registered Nurses by Race and Ethnicity, 2022

Race	Nursing Education Level, n (%)							n
	Diploma	Associate	Baccalaureate	Master's	Doctoral (PhD)	Doctoral (DNP)	Doctoral (other)	
American Indian or Alaska Native	61.2 (5.1)	346.6 (28.7)	586.3 (48.5)	165.7 (13.7)	14.9 (1.2)	33.3 (2.8)	0.0 (0.0)	1,208.0
Asian	549.2 (2.8)	1,919.5 (9.6)	14,175.0 (71.1)	3,119.0 (15.6)	35.0 (0.2)	145.8 (0.7)	6.4 (0.0)	19,949.9
Black/African American	452.6 (2.7)	3,718.6 (21.8)	8,405.9 (49.3)	3,868.0 (22.7)	220.7 (1.3)	339.6 (2.0)	45.6 (0.3)	17,051.0
Native Hawaiian or Other Pacific Islander	69.0 (6.1)	113.5 (10.0)	662.4 (58.4)	278.7 (24.6)	4.8 (0.4)	6.3 (0.6)	0.1 (0.0)	1,134.7
White/Caucasian	9,535.9 (4.4)	56,320.0 (26.0)	106,344.0 (49.1)	38,608.1 (17.8)	1,910.2 (0.9)	3,343.2 (1.5)	473.9 (0.2)	216,535.0
Other	171.1 (2.2)	1,705.9 (21.4)	4,347.7 (54.6)	1,487.5 (18.7)	60.5 (0.8)	181.6 (2.3)	10.3 (0.1)	7,964.6
More than one race category selected	138.9 (2.1)	1,438.0 (21.6)	3,767.2 (56.7)	1,051.5 (15.8)	68.4 (1.0)	171.6 (2.6)	10.9 (0.2)	6,646.6
Total	10,977.7 (4.1)	65,562.1 (24.2)	138,288.0 (51.1)	48,578.7 (18.0)	2,314.5 (0.9)	4,221.4 (1.6)	547.3 (0.2)	270,490.0
Hispanic/Latino	279.3 (1.5)	4,570.7 (24.6)	9,776.5 (52.5)	3,411.9 (18.3)	90.3 (0.5)	445.6 (2.4)	39.5 (0.2)	18,613.7

Note. DNP = doctor of nursing practice. In the 2015 surveys, a single question "What is your highest level of education?" was asked with the set of possible responses including both nursing and non-nursing degrees. The degree types were separated beginning with the 2017 survey. For the race question, respondents were asked to select all that apply, and responses were subsequently recoded to ensure that the race categories were mutually exclusive. Respondents selecting multiple race categories were reclassified into the "more than one race category selected" category.

Highest Level of Nursing Education by Age

Younger nurses (aged 18–39 years) tended to hold a baccalaureate degree as their highest level of nursing education while older nurses tended to have a nursing diploma or associate degree as their highest level of nursing education. RNs older than 35 years were somewhat more likely to hold an advanced nursing degree (i.e., master's, PhD, or DNP) than their younger colleagues (Table 15).

TABLE 15

Age of Registered Nurses by Highest Level of Nursing Education, 2022

Weighted Sample Values	Age, y, n (%)									n
Nursing Education Level	18–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	≥65	
Diploma	377.2 (3.6)	349.2 (3.3)	301.6 (2.8)	331.1 (3.1)	369.6 (3.5)	1,023.2 (9.6)	1,160.0 (10.9)	1,736.1 (16.3)	4,990.6 (46.9)	10,638.5
Associate degree	4,184.5 (6.6)	6,457.3 (10.2)	5,649.1 (8.9)	6,953.4 (11.0)	7,273.2 (11.5)	8,172.8 (12.9)	7,140.5 (11.3)	7,435.2 (11.8)	9,928.6 (15.7)	63,194.6
Baccalaureate degree	22,559.8 (17.0)	21,493.3 (16.2)	16,956.4 (12.8)	13,505 (10.2)	13,520.9 (10.2)	14,217.4 (10.7)	9886 (7.5)	8930.1 (6.7)	11,570.3 (8.7)	132,639.0
Master's degree	1,621.2 (3.5)	5,229.0 (11.3)	6,279.2 (13.6)	6,117.1 (13.2)	5,858.2 (12.7)	6,049.4 (13.1)	4,526.8 (9.8)	4,250.9 (9.2)	6,356.4 (13.7)	46,288.1
Doctoral degree: PhD	19.2 (0.9)	112.4 (5.0)	233.6 (10.3)	7,273.2 (8.5)	271.7 (12.0)	210.6 (9.3)	378.1 (16.7)	323.4 (14.3)	519.9 (23.0)	2,261.8
Doctoral degree: DNP	176.5 (4.3)	558.3 (13.5)	561.3 (13.6)	540.9 (13.1)	432.7 (10.5)	593.3 (14.3)	465.7 (11.3)	361.6 (8.7)	449.5 (10.9)	4,139.7
Doctoral degree: other	0.0 (0.0)	27.7 (5.5)	78.4 (15.5)	29.5 (5.8)	48.8 (9.7)	46.1 (9.1)	17.4 (3.5)	66.3 (13.1)	191.6 (37.9)	505.8
Total	28,938.3 (11.1)	34,227.3 (13.2)	30,059.5 (11.6)	27,669.8 (10.7)	27,775.1 (10.7)	30,312.7 (11.7)	23,574.6 (9.1)	23,103.6 (8.9)	34,006.7 (13.1)	259,668.0

Note. DNP = doctor of nursing practice. In the 2015 surveys, a single question "What is your highest level of education?" was asked with the set of possible responses including both nursing and non-nursing degrees. The degree types were separated beginning with the 2017 survey.

Highest Level of Non-nursing Education

From 2017 through 2022, non-nursing associate degrees decreased from 35.3% to 33.9%, baccalaureate degrees increased from 45.8% to 50.2%, master's degrees decreased from 15.8% to 13.9%, and doctoral degrees decreased from 3.1% to 2.1% (Table 16 and Figure 4).

TABLE 16

Highest Level of Non-nursing Education of Registered Nurses, 2017–2022

Nursing Education Level	2017 (*N* = 19,904.5)		2020 (*N* = 17,698.1)		2022 (*N* = 113,020.7)	
	n	%	*n*	%	*n*	%
Associate degree	7,025.9	35.3	6,578.1	37.2	38,275	33.9
Baccalaureate degree	9,115.4	45.8	8,141.5	46.0	56,706	50.2
Master's degree	3,150.8	15.8	2,547.4	14.4	15,660	13.9
Doctoral degree	612.4	3.1	431.1	2.4	2,380	2.1

Note. In the 2015 surveys, a single question "What is your highest level of education?" was asked with the set of possible responses including both nursing and non-nursing degrees. The degree types were separated beginning with the 2017 survey.

FIGURE 4

Highest Level of Non-nursing Education of Registered Nurses (RNs)
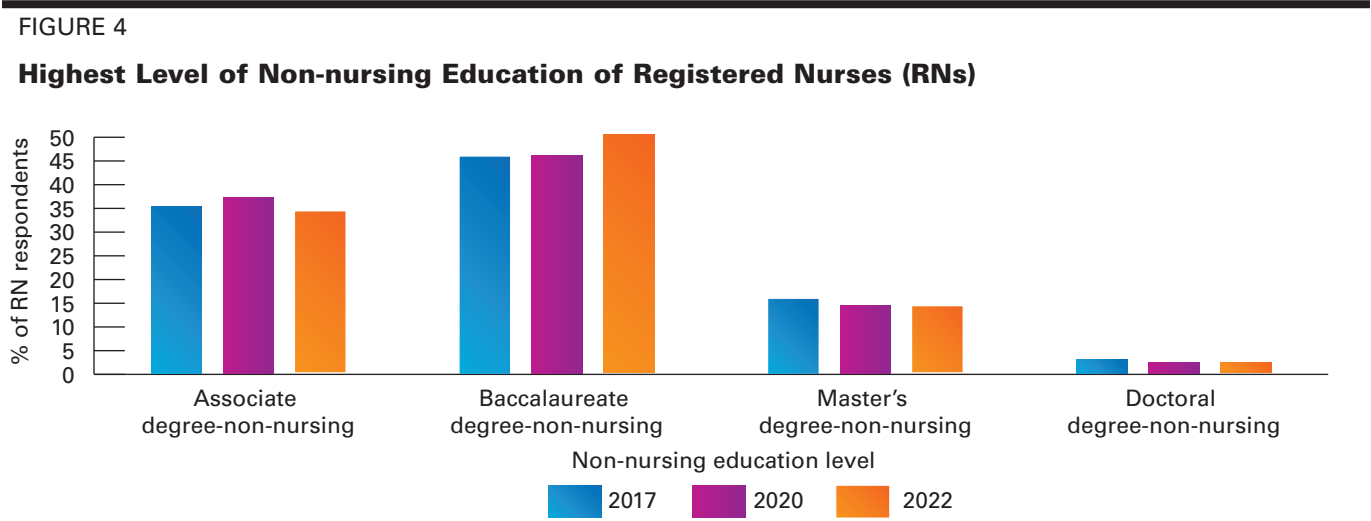
Licensure

Type of License Currently Held

Like previous years, less than 1% of responding RNs held an LPN/LVN license, while 9.8% held an advanced practice registered nurse (APRN) credential. The percentage of RNs holding an APRN credential has recovered from 6.6% in 2020 but is still lower than the 10% in 2017 (Table 17 and Figure 5).

TABLE 17

Type of License Currently Held by Registered Nurses (RNs), 2015–2022

License	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Response	*N* = 46,047.8		*N* = 48,128.0		*N* = 41,601.8		*N* = 252,623.7	
RN	43,730.2	95.0	45,971.3	95.5	40,378.3	97.1	239,838.6	94.9
LPN/LVN	330.8	0.7	386.2	0.8	323.6	0.8	2,109.2	0.8
APRN	3,974.7	8.6	4,788.6	10.0	2,763.2	6.6	24,633.4	9.8
U.S. RN Population								
RN	3,508,219	95.0	3,729,318	95.5	4,033,920	97.1	3,826,692	94.9
LPN/LVN	26,534	0.7	31,328	0.8	32,329	0.8	33,653	0.8
APRN	318,870	8.6	388,461	10.0	276,052	6.6	393,032	9.8

Note. RN = registered nurse; LPN/LVN = licensed practical nurse/licensed vocational nurse; APRN = advanced practice registered nurse. Respondents were asked to select all that apply.

FIGURE 5

Type of License Currently Held by Registered Nurses (RNs)
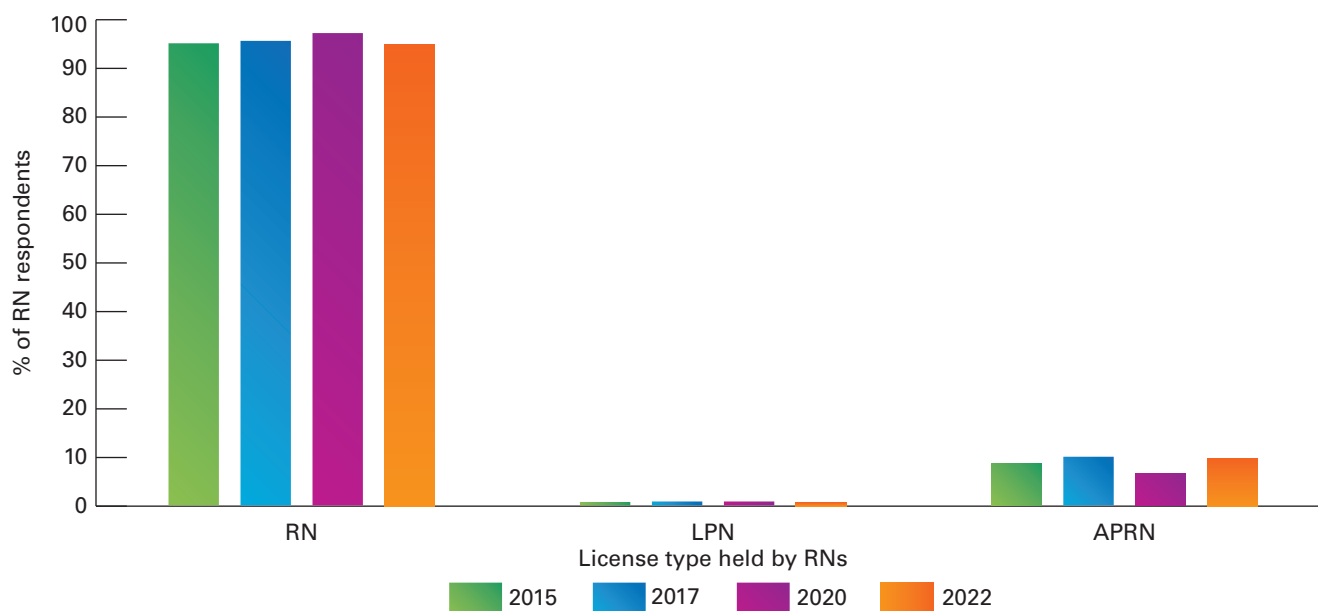
Number of Years Licensed

RN respondents were licensed for a median of 15 years, as compared to 20 years in the 2020 survey. More than one-third (37.9%) were licensed for 10 years or less, the highest since 2015. An additional 24.6% were licensed between 11 and 20 years, resulting in more than 62% of RNs reporting fewer than 20 years of being licensed. The percent licensed for more than 20 years was at the lowest level in 2022 (37.6%) since 2015 (47%)—nearly 10 percentage points less (Table 18 and Figure 6).

TABLE 18

Number of Years the Registered Nurse Has Been Licensed, 2015–2022

Years Licensed	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	*N* = 39,771.5		*N* = 46,757.6		*N* = 38,741.0		*N* = 255,537.8	
0–10	13,307.3	33.5	15,397.6	32.9	11,802.6	30.5	96,801.6	37.9
11–20	7,753.4	19.5	9,217.7	19.7	8,577.4	22.1	62,790.2	24.6
21–30	6,855.8	17.2	8,121.6	17.4	6,934.1	17.9	42,027.9	16.5
31–40	7,311.4	18.4	8,226.1	17.6	5,951.6	15.4	29,614.8	11.6
≥41	4,543.7	11.4	5,794.6	12.4	5,475.4	14.1	24,303.1	9.5
U.S. RN Population								
0–10	1,067,569	33.5	1,249,096	32.9	1,179,117	30.5	1,544,497	37.9
11–20	622,009	19.5	747,767	19.7	856,909	22.1	1,001,835	24.6
21–30	549,997	17.2	658,844	17.4	692,739	17.9	670,566	16.5
3–40	586,547	18.4	667,326	17.6	594,584	15.4	472,513	11.6
≥ 41	364,511	11.4	470,073	12.4	547,010	14.1	387,763	9.5

FIGURE 6

Number of Years Registered Nurses (RNs) Have Been Licensed
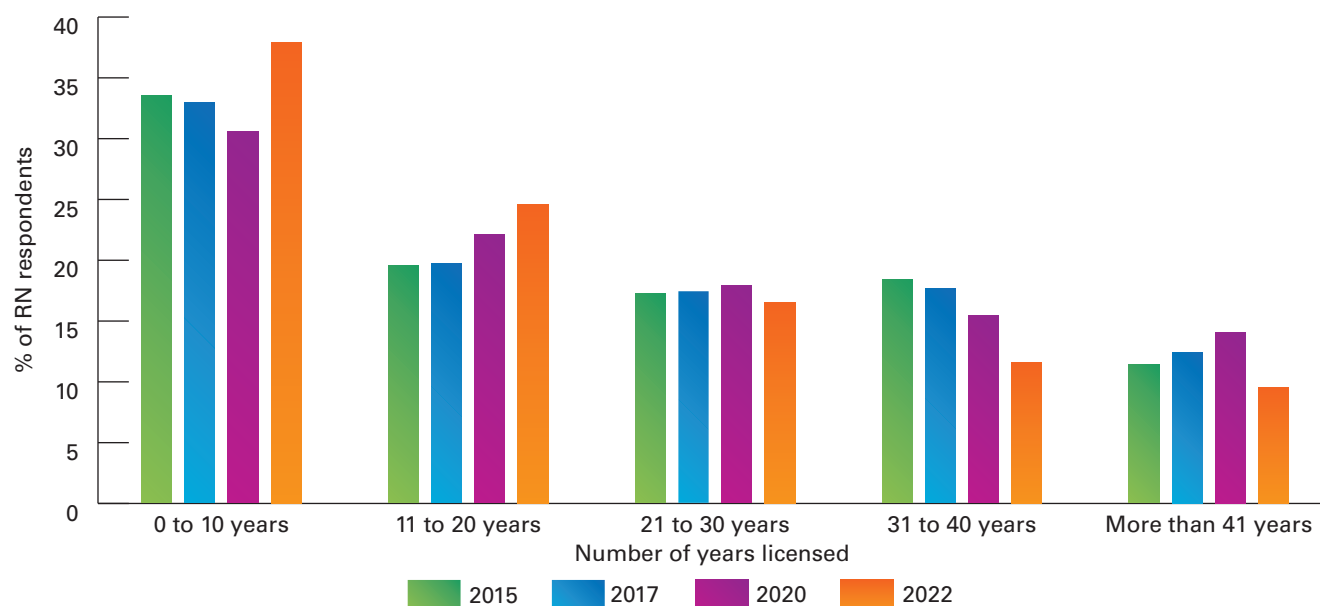
Country Where Entry-Level Education Was Received

Most RNs (94.8%) reported obtaining their entry-level nursing education in the United States in 2022, a slight increase from the 93.9% who reported the same in 2020. Another 2.8% obtained their entry-level nursing education in the Philippines, 0.5% in Canada, and 0.4% in India (Table 19).

TABLE 19

Country of Entry-Level Nursing Education of Registered Nurses (RNs), 2020–2022

Country	2020		2022	
	n	%	*n*	%
RN Survey Respondents	*N* = 41,745.5		*N* = 252,307.9	
United States	39,192.5	93.9	239,250.2	94.8
Canada	224.7	0.5	1,256.5	0.5
Philippines	1,360.3	3.3	7,089.6	2.8
India	212.8	0.5	883.8	0.4
Other	755.2	1.8	3,827.9	1.5
U.S. RN Population				
United States	3,915,455	93.9	3,817,304	94.8
Canada	22,448	0.5	20,048	0.5
Philippines	135,898	3.3	113,116	2.8
India	21,259	0.5	14,101	0.4
Other	75,447	1.8	61,075	1.5

Credentials to Practice as an APRN

Respondents were asked whether they were credentialed as an APRN in their state, enabling them to practice in any of the four APRN roles: nurse practitioner (NP), clinical nurse specialist (CNS), certified registered nurse anesthetist (CRNA), or certified nurse midwife (CNM). Most respondents (88.4%) indicated they were not credentialed to practice as an APRN. This represents a lower proportion of RNs not credentialed as an APRN compared to 91.6% in 2020. In 2022, 8.6% of respondents reported being credentialed as a NP, compared to 5.5% in 2020 (Table 20 and Figure 7).

TABLE 20

Registered Nurse (RN) Credentials to Practice as an APRN, 2015–2022

Credential	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	*N* = 43,045.0		*N* = 47,713.6		*N* = 41,129.2		*N* = 271,194.6	
Nurse practitioner	3,129.4	7.2	4,067.1	8.5	2,257.1	5.5	23,188.1	8.6
Clinical nurse specialist	576.8	1.3	983.5	2.1	769.2	1.9	5,466.0	2.0
Certified registered nurse anesthetist	571.9	1.3	728.7	1.5	399.7	0.9	2,959.5	1.1
Certified nurse midwife	167.7	0.4	242.0	0.5	192.0	0.5	994.2	0.4
Not licensed/certified as any above	38,599.3	89.7	42,004.2	88.0	37,677.6	91.6	239,699.1	88.4
U.S. RN Population								
Nurse practitioner	251,053	7.2	329,933	8.5	225,491	5.5	369,972	8.6
Clinical nurse specialist	46,275	1.3	79,787	2.1	76,846	1.9	87,212	2.0
Certified registered nurse anesthetist	45,879	1.3	59,114	1.5	39,931	0.9	47,219	1.1
Certified nurse midwife	13,452	0.4	19,636	0.5	19,181	0.5	15,863	0.4
Not licensed/certified as any above	3,096,595	89.7	3,407,498	88.0	3,764,112	91.6	3,824,467	88.4

Note. APRN = advanced practice registered nurse.

FIGURE 7

Registered Nurses (RNs) Credentialed as Advanced Practice Registered Nurses (APRNs)
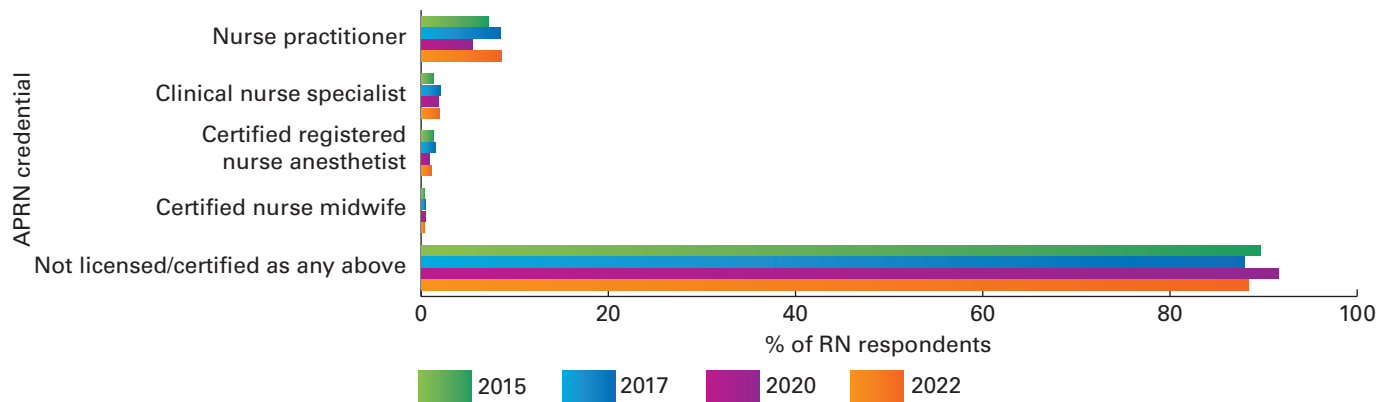
Multistate Licensure

Currently Hold a Multistate License

From 2020 through 2022, multistate licensure among RNs increased by 6.3% from 24.0% to 30.3% (Table 21).

TABLE 21

Registered Nurses Holding a Multistate License, 2020–2022

Multistate License	2020 (*N* = 34,825.9)		2022 (*N* = 214,686.7)	
	n	%	*n*	%
Yes	8,367.4	24.0	65,087.7	30.3
No	26,458.5	76.0	149,599.1	69.7

Note. Respondents were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Use of Multistate License

In 2022, 32.2% of RNs with multistate licenses had used them. In addition to telehealth, distance education, and disaster support, they were used for travel nursing and multistate practice Table 22).

TABLE 22

How a Multistate License is Used by Registered Nurses, 2022

Use of Multistate License	2022 (*N* = 66,014.3)	
	n	%
Telehealth	5,850.0	8.9
Distance education	1,686.0	2.6
Disaster support	1,800.6	2.7
Have not used	44,777.2	67.8
Other	13,472.2	20.4

Note. Respondents were asked to select all that apply. Respondents were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Employment

Employment Status

The majority of responding RNs (88.9%) were actively employed in nursing, with 70.2% employed full time. Compared with 2020 survey results, this represents a 4.8% increase in the proportion of RNs actively employed and a 5.3% increase in those working full time. The proportion of RNs who are actively employed in nursing is at the highest level since 2015 (Table 23 and Figure 8).

TABLE 23

Employment Status of Registered Nurses (RNs), 2015–2022

Employment Status	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	*N* = 46,210.2		*N* = 48,146.9		*N* = 41,783.4		*N* = 277,034.9	
Actively employed in nursing full time	29,088.5	62.9	31,476.6	65.4	27,101.0	64.9	194,565.3	70.2
Actively employed in nursing part time	6,088.0	13.2	5,820.9	12.1	4,901.7	11.7	30,268.8	10.9
Actively employed in nursing per diem	3,675.2	8.0	3,424.9	7.1	3,133.6	7.5	21,526.3	7.8
Actively employed in a field other than nursing full time	1,576.1	3.4	1,108.9	2.3	882.4	2.1	5,098.3	1.8
Actively employed in a field other than nursing part time	850.8	1.8	605.7	1.3	438.5	1.1	2,727.8	1.0
Actively employed in a field other than nursing per diem	377.7	0.8	267.5	0.6	188.5	0.5	1,521.2	0.6
Working in nursing only as a volunteer	564.5	1.2	645.6	1.3	517.1	1.2	2,553.8	0.9
Unemployed, seeking work as a nurse	1,070.7	2.3	1,030.2	2.1	809.1	1.9	5,443.9	2.0
Unemployed, not seeking work as a nurse	1,611.6	3.5	1,616.2	3.4	1,362.4	3.3	7,223.8	2.6
Retired	4,993.7	10.8	4,916.9	10.2	4,824.7	11.6	23,038.1	8.3
U.S. RN Population								
Actively employed in nursing full time	2,333,606	62.9	2,553,467	65.4	2,707,476	64.9	3,104,344	70.2
Actively employed in nursing part time	488,405	13.2	472,204	12.1	489,695	11.7	482,946	10.9
Actively employed in nursing per diem	294,837	8.0	277,834	7.1	313,057	7.5	343,458	7.8
Actively employed in a field other than nursing full time	126,445	3.4	89,956	2.3	88,155	2.1	81,345	1.8
Actively employed in a field other than nursing part time	68,255	1.8	49,139	1.3	43,808	1.1	43,522	1.0
Actively employed in a field other than nursing per diem	30,298	0.8	21,702	0.6	18,832	0.5	24,271	0.6
Working in nursing only as a volunteer	45,288	1.2	52,374	1.3	51,660	1.2	40,746	0.9
Unemployed, seeking work as a nurse	85,896	2.3	83,573	2.1	80,832	1.9	86,859	2.0
Unemployed, not seeking work as a nurse	129,287	3.5	131,114	3.4	136,108	3.3	115,258	2.6
Retired	400,613	10.8	398,871	10.2	482,003	11.6	367,580	8.3

Note. Respondents were asked to select all that apply.

FIGURE 8

Employment Status of Registered Nurses (RNs)
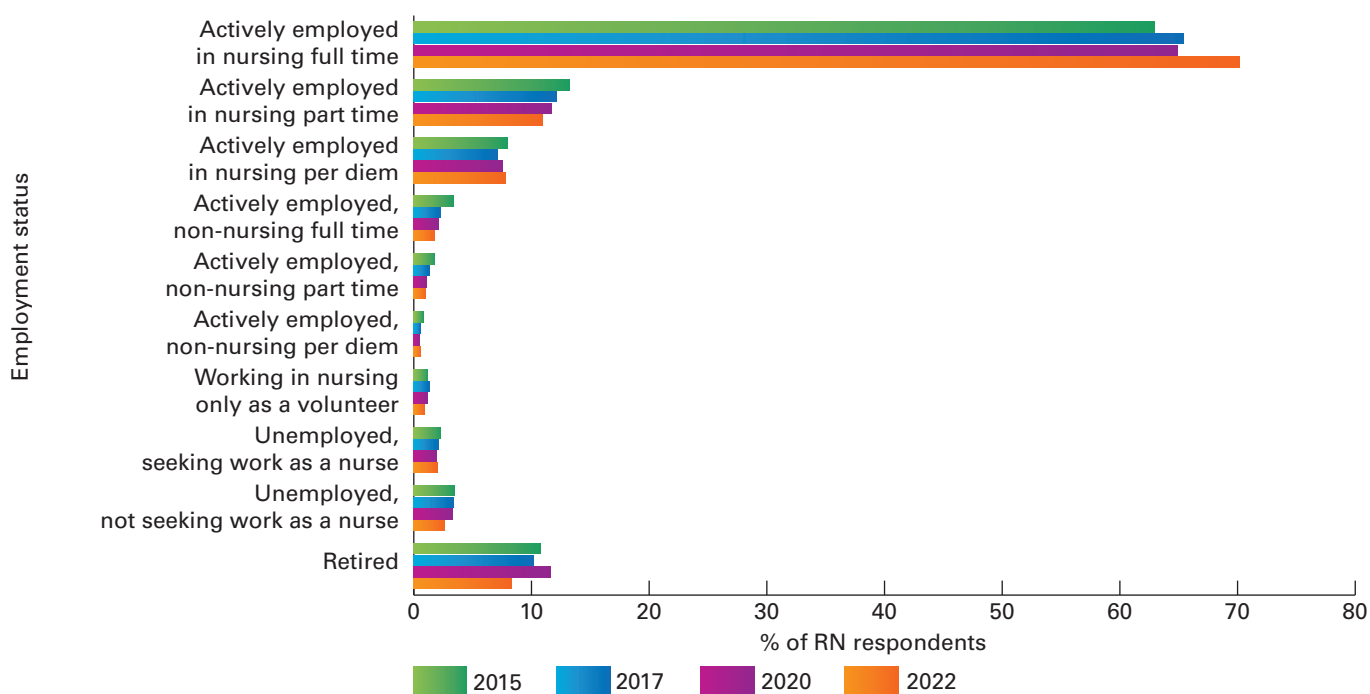
Reasons for Being Unemployed

Taking care of home and family was the most frequently reported reason for being unemployed (reported by 46.8% of respondents). About 22% attributed their unemployment to the COVID-19 pandemic. Almost 12% of RNs stated they were unemployed because of "inadequate salary." This represents a marked increase in the reporting of an inadequate salary, as the proportion of RNs reporting an inadequate salary in 2020 was 2.5%. The percentage of RNs who indicated unemployment because they had trouble in finding a nursing position was 10.7%, which was down from 14.6% in 2020. The percentage of RNs who listed "disabled" as the reason for unemployment was 7.2%, and 9.5% listed "school" as the reason for unemployment (Table 24 and Figure 9).

TABLE 24

Reasons for Unemployment of Registered Nurses, 2015–2022

Reasons for Unemployment	2015 (*N* = 2,272.4)		2017 (*N* = 2,567.2)		2020 (*N* = 2,122.1)		2022 (*N* = 12,397.1)	
	n	%	*n*	%	*n*	%	*n*	%
Taking care of home and family	1137.3	50.0	1226.8	47.8	1,039.5	49.0	5,805.8	46.8
Disabled	298.5	13.1	347.6	13.5	226.4	10.7	893.9	7.2
Inadequate salary	48.2	2.1	73.7	2.9	53.7	2.5	1,477.7	11.9
School	143.1	6.3	186.0	7.2	172.2	8.1	1,171.1	9.5
Difficulty in finding a nursing position	352.0	15.5	395.0	15.4	310.3	14.6	1,327.6	10.7
COVID-19 pandemic	-	-	-	-	-	-	2,433.5	22.6
Other	557.4	24.5	758.9	29.6	680.2	32.1	4,486.6	36.2

Note. Survey participants were asked to answer this question only if they were unemployed. Respondents were asked to select all that apply.

FIGURE 9

Reasons for Unemployment of Registered Nurses (RNs)

Legend: 2015, 2017, 2020, 2022

x-axis: % of RN respondents

y-axis: Reason for unemployment (Taking care of home and family, Disabled, Inadequate salary, School, Difficulty in finding a nursing position, COVID-19 pandemic, Other)
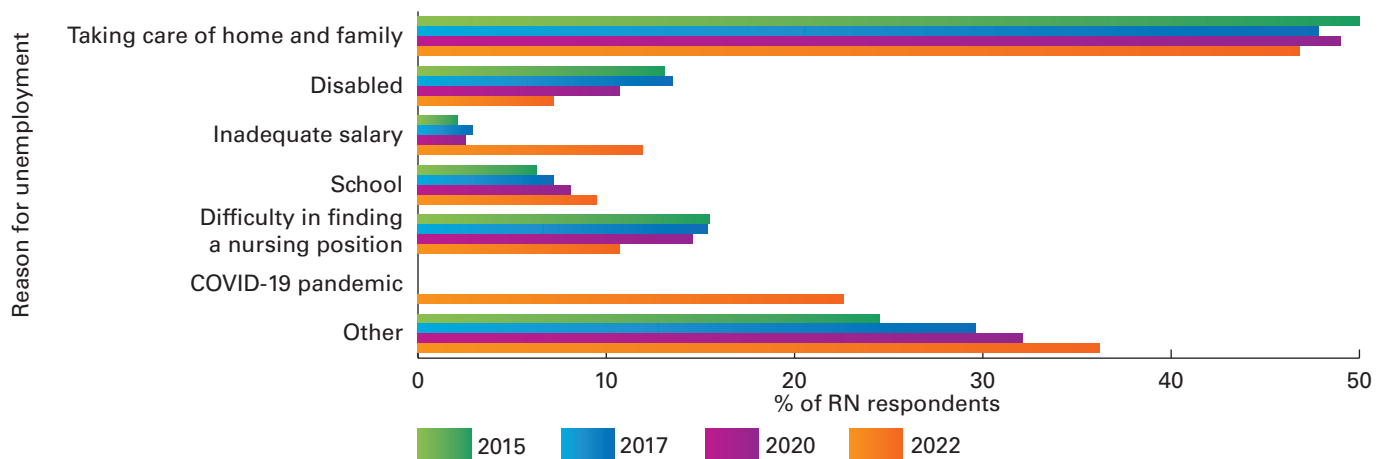
Retirement Plans

More than a quarter (28.7%) of RNs reported they plan to retire within the next 5 years. This finding represents a 6.6% increase over the proportion who thought they would retire within 5 years (22.1%) in the 2020 survey (Table 25).

TABLE 25

Registered Nurse (RN) Plans to Retire or Leave Nursing, 2020–2022

Plan to Retire Within 5 Years	2020		2022	
	n	%	*n*	%
RN Survey Respondents	*N* = 34,360.2		*N* = 216,831.7	
Yes	7,584.5	22.1	62,234.8	28.7
No	26,775.8	77.9	154,597.0	71.3
U.S. RN Population				
Yes	757,716	22.1	992,974	28.7
No	2,674,987	77.9	2,466,639	71.3

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Number of Positions Currently Held

Respondents were asked to identify the number of positions in which they were currently employed as a nurse. Most respondents (82.4%) reported holding just one position as a nurse, which represents a 0.5% increase when compared to 2020. The percentage of RNs who reported working in two positions increased from 13.7% in 2020 to 15.0% in 2022. The percentage of respondents who indicated that they held three or more positions in nursing also slightly increased from 2.4% in 2020 to 2.6% in 2022 (Table 26).

TABLE 26

Number of Positions Currently Held by Registered Nurses (RNs), 2015–2022

Number of Positions Held	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	N = 37,114.2		N = 39,414.3		N = 33,992.6		N = 235,732.0	
1	31,499.3	84.9	32,827.2	83.3	28,516.3	83.9	194,280.1	82.4
2	4,744.0	12.8	5,496.7	13.9	4,664.1	13.7	35,280.2	15.0
≥3	870.8	2.4	1,090.5	2.8	812.2	2.4	6,171.7	2.6
U.S. RN Population								
1	2,527,010	84.9	2,663,030	83.3	2,848,869	83.9	3,099,794	82.4
2	380,585	12.8	445,905	13.9	465,958	13.7	562,905	15.0
≥3	69,861	2.4	88,463	2.8	81,141	2.4	98,471	2.6

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

Number of Hours Worked During a Typical Week in All Nursing Positions

More than half (54.6%) of responding RNs reported working 32 to 40 hours in a typical week in all positions. This is a decrease from the results from the 2020 (58.7%) and the 2017 survey findings (58.6%). The second most frequently reported category was 41 to 50 hours (19%), which is higher than that reported for 2020 (14.5%) and 2017 (15.8%) (Table 27 and Figure 10).

TABLE 27

Number of Hours Registered Nurses (RNs) Worked During a Typical Week in All Nursing Positions, 2015–2022

Hours Worked per Week	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	N = 36,327.6		N = 39,293.3		N = 33,847.5		N = 235,197.9	
1–15	1,697.7	4.7	1,903.7	4.8	1,624.0	4.8	8,482.5	3.6
16–23	1,655.7	4.6	1,728.1	4.4	1,402.3	4.1	7,897.3	3.4
24–31	3,536.9	9.8	3,765.0	9.6	3,251.0	9.6	20,715.0	8.8
32–40	21,174.3	58.4	23,012.6	58.6	19,850.6	58.7	128,375.1	54.6
41–50	5,957.3	16.4	6,198.0	15.8	4,915.1	14.5	44,684.8	19.0
51–60	1,636.9	4.5	1,851.3	4.7	1,479.9	4.4	14,197.5	6.0
≥61	578.8	1.6	834.7	2.1	1,324.5	3.9	10,845.7	4.6
U.S. RN Population								
1–15	136,200	4.7	154,434	4.8	162,243	4.8	135,340	3.6
16–23	132,826	4.6	140,190	4.4	140,094	4.1	126,004	3.4
24–31	283,745	9.8	305,426	9.6	324,785	9.6	330,513	8.8
32–40	1,698,692	58.4	1,866,841	58.6	1,983,138	58.7	2,048,261	54.6
41–50	477,918	16.4	502,796	15.8	491,034	14.5	712,959	19.0
51–60	131,318	4.5	150,180	4.7	147,847	4.4	226,525	6.0
≥61	46,432	1.6	67,712	2.1	132,322	3.9	173,046	4.6

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 10

Number of Hours Registered Nurses (RNs) Worked in All Nursing Positions
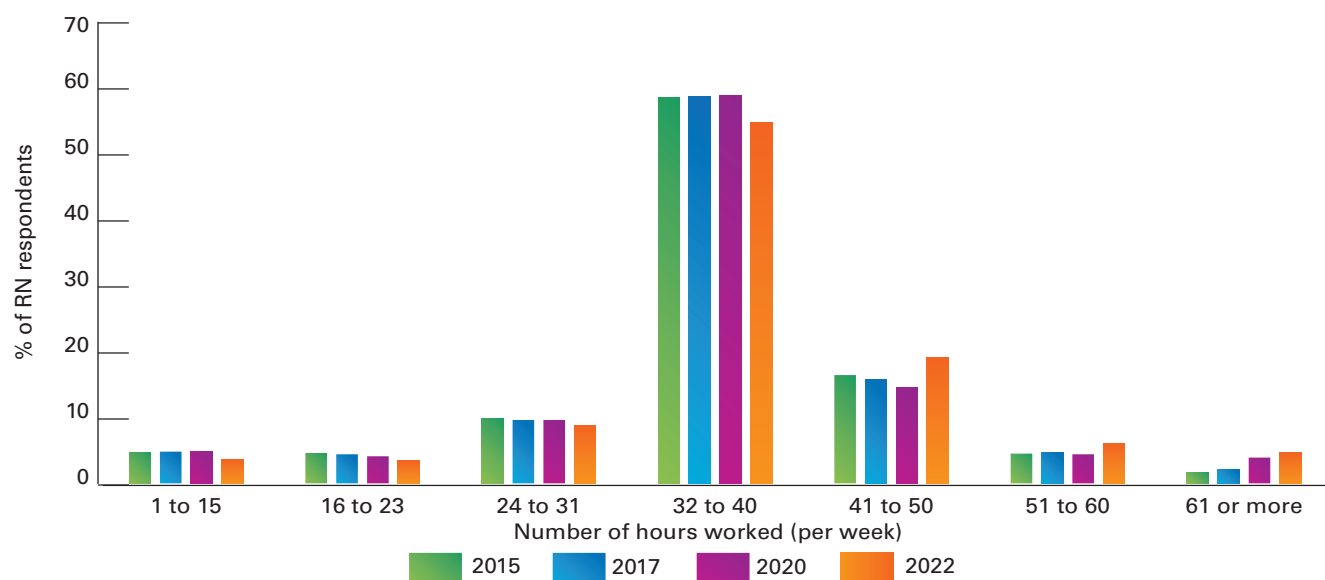
Primary Nursing Practice Position Setting

About 57% of RNs indicated that a hospital was their primary nursing practice. This represents an increase of 2.7 percentage points from 2020. Ambulatory care setting was the second most frequently selected setting by 10.4% of RNs, followed by nursing home/extended care at 3.9% and home health setting selected by 3.4%. School health service as a selection dropped from 3.1% in 2020 to 2.3% in 2022. Nurses selecting public health also increased to 1.7% in 2022, up from 1.2 in 2020. Insurance claims/benefits respondents dropped to 2.0% in 2022, down from 2.5% in 2020 (Table 28 and Figure 11).

TABLE 28

Primary Nursing Practice Position Setting of Registered Nurses (RNs), 2015–2022

Practice Setting	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	*N* = 37,372.1		*N* = 38,870.1		*N* = 33,640.6		*N* = 232,872.0	
Hospital	20,311.9	54.4	21,646.5	55.7	18,441.8	54.8	133,911.7	57.5
Nursing home/extended care	1,807.2	4.8	1,859.7	4.8	1,486.7	4.4	9,024.8	3.9
Assisted living facility	233.3	0.6	211.2	0.5	177.5	0.5	1,187.3	0.5
Home health	2,288.0	6.1	1,685.9	4.3	1,501.7	4.5	7,818.4	3.4
Hospice	-	-	757.8	2.0	674.3	2.0	4,175.6	1.8
Correctional facility	259.6	0.7	294.8	0.8	277.7	0.8	1,525.4	0.7
School of nursing	1,357.0	3.6	1,028.9	2.7	954.1	2.8	4,908.9	2.1
Public health	595.4	1.6	539.3	1.4	407.5	1.2	3,832.2	1.7
Dialysis center	-	-	493.6	1.3	386.8	1.2	2,643.9	1.1
Community health	786.9	2.1	780.8	2.0	565.3	1.7	4,655.2	2.0
School health service	1,092.8	2.9	1,025.3	2.6	1,057.8	3.1	5,441.8	2.3
Occupational health	250.3	0.7	292.6	0.8	230.7	0.7	1,642.9	0.7
Ambulatory care setting	4,201.1	11.2	3,649.2	9.4	3,271.6	9.7	24,267.2	10.4
Insurance claims/benefits	673.7	1.8	694.1	1.8	841.1	2.5	4,642.6	2.0
Policy/planning/regulatory/licensing agency	148.7	0.4	86.9	0.2	88.1	0.3	746.5	0.3
Other	3,366.3	9.0	3,823.6	9.8	3,278.0	9.7	22,447.4	9.6
U.S. RN Population								
Hospital	1,629,506	54.4	1,756,021	55.7	1,842,394	54.8	2,136,599	57.5
Nursing home/extended care	144,982	4.8	150,865	4.8	148,526	4.4	143,994	3.9

(continued)

Primary Nursing Practice Position Setting of Registered Nurses (RNs), 2015–2022 *(continued)*

Practice Setting	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
Assisted living facility	18,718	0.6	17,132	0.5	17,733	0.5	18,943	0.5
Home health	183,553	6.1	136,765	4.3	150,025	4.5	124,744	3.4
Hospice	-	-	61,471	2.0	67,365	2.0	66,623	1.8
Correctional facility	20,828	0.7	23,918	0.8	27,743	0.8	24,338	0.7
School of nursing	108,863	3.6	83,466	2.7	95,318	2.8	78,324	2.1
Public health	47,763	1.6	43,748	1.4	40,711	1.2	61,143	1.7
Dialysis center	-	-	40,040	1.3	38,643	1.2	42,185	1.1
Community health	63,128	2.1	63,337	2.0	56,475	1.7	74,275	2.0
School health service	87,666	2.9	83,178	2.6	105,678	3.1	86,826	2.3
Occupational health	20,080	0.7	23,736	0.8	23,048	0.7	26,213	0.7
Ambulatory care setting	337,028	11.2	296,030	9.4	326,843	9.7	387,190	10.4
Insurance claims/benefits	54,046	1.8	56,306	1.8	84,029	2.5	74,075	2.0
Policy/planning/regulatory/licensing agency	11,930	0.4	7,050	0.2	8,801	0.3	11,910	0.3
Other	270,057	9.0	310,178	9.8	327,483	9.7	358,155	9.6

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 11

Most-Reported Primary Nursing Practice Position Setting of Registered Nurses (RNs)
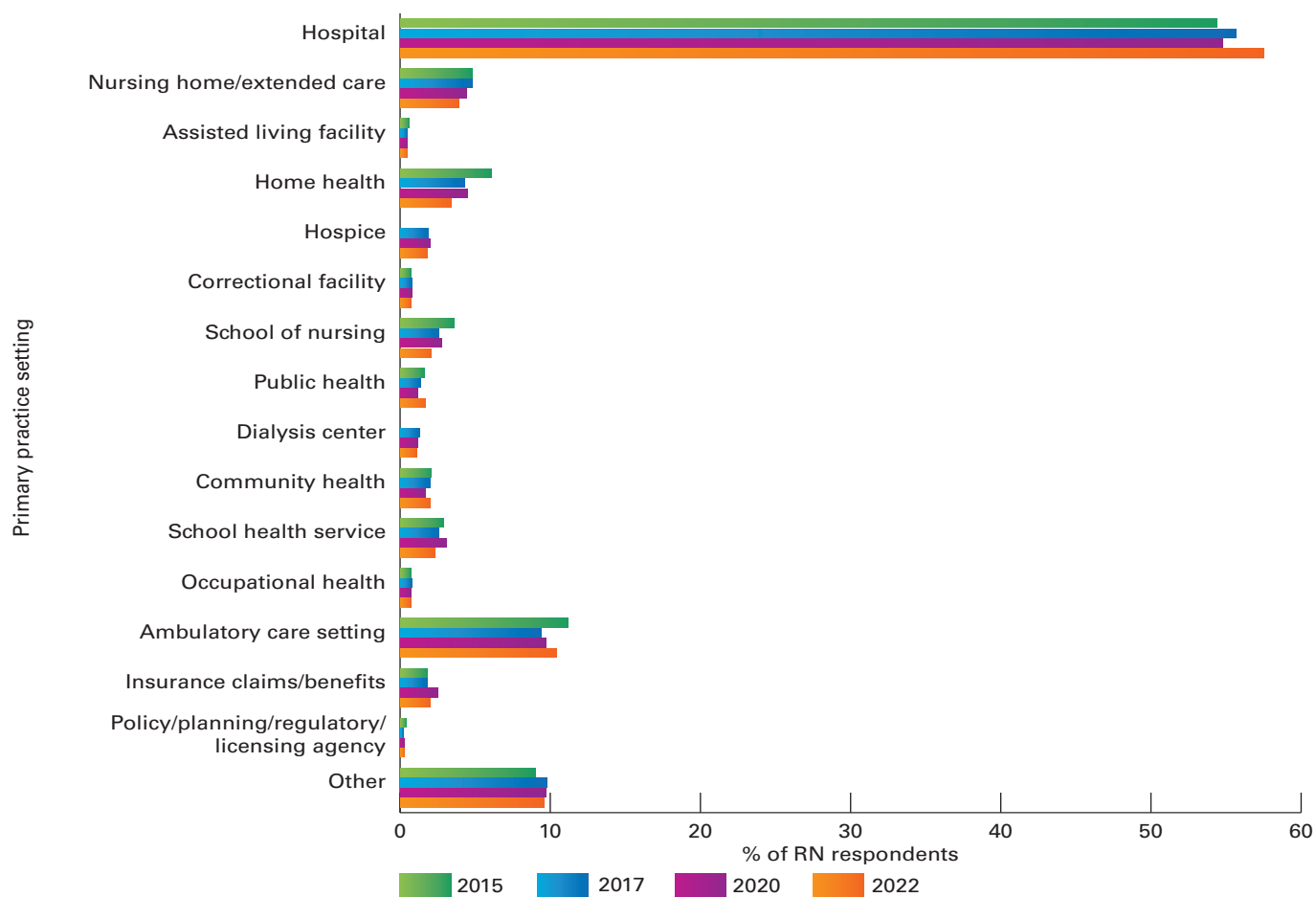
Primary Nursing Position Title

More than half (56%) of RNs reported their nursing position title as a staff nurse in 2022. This is down slightly from 2020, when 60% identified as a staff nurse. The title of case manager accounted for 10.9% of nursing titles, which is an increase from 7.4% in the 2020 survey. Additionally, the proportion of APRNs grew in 2022 to 9.7% from 6.3% in 2020 (Table 29 and Figure 12).

TABLE 29

Primary Nursing Position Title of Registered Nurses (RNs), 2015–2022

Primary Title	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
RN Survey Respondents	*N* = 37,711.1		*N* = 39,063.1		*N* = 33,713.7		*N* = 233,841.4	
Consultant	672.4	1.8	577.4	1.5	531.7	1.6	2,782.6	1.2
Nurse researcher	247.2	0.7	235.9	0.6	155.6	0.5	1,140.6	0.5
Nurse executive	881.4	2.3	725.3	1.9	647.7	1.9	4,326.3	1.9
Nurse manager	3,045.8	8.1	3,126.2	8.0	2,673.3	7.9	17,149.0	7.3
Nurse faculty/educator	1,422.2	3.8	1,558.2	4.0	1,392.5	4.1	7,673.0	3.3
APRN	3,069.1	8.1	3,946.1	10.1	2,130.2	6.3	22,782.1	9.7
Staff nurse	21,920.7	58.1	22,673.0	58.0	20,265.9	60.1	132,070.7	56.5
Case manager	2,524.8	6.7	2,519.2	6.4	2,485.3	7.4	25,478.9	10.9
Other – health related	3,685.1	9.8	3,561.9	9.1	3,277.4	9.7	17,964.2	7.7
Other – not health related	242.5	0.6	139.7	0.4	154.2	0.5	2,474.0	1.1
U.S. RN Population								
Consultant	53,944	1.8	46,844	1.5	53,119	1.6	44,397	1.2
Nurse researcher	19,830	0.7	19,139	0.6	15,545	0.5	18,199	0.5
Nurse executive	70,706	2.3	58,836	1.9	64,707	1.9	69,027	1.9
Nurse manager	244,343	8.1	253,609	8.0	267,071	7.9	273,617	7.3
Nurse faculty/educator	114,099	3.8	126,408	4.0	139,115	4.1	122,425	3.3
APRN	246,214	8.1	320,121	10.1	212,814	6.3	363,495	9.7
Staff nurse	1,758,573	58.1	1,839,294	58.0	2,024,628	60.1	2,107,225	56.5
Case manager	202,546	6.7	204,368	6.4	248,289	7.4	406,523	10.9
Other – health related	295,637	9.8	288,950	9.1	327,423	9.7	286,625	7.7
Other – not health related	19,453	0.6	11,332	0.4	15,405	0.5	39,473	1.1

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 12

Most Reported Primary Nursing Position Title of Registered Nurses (RNs)
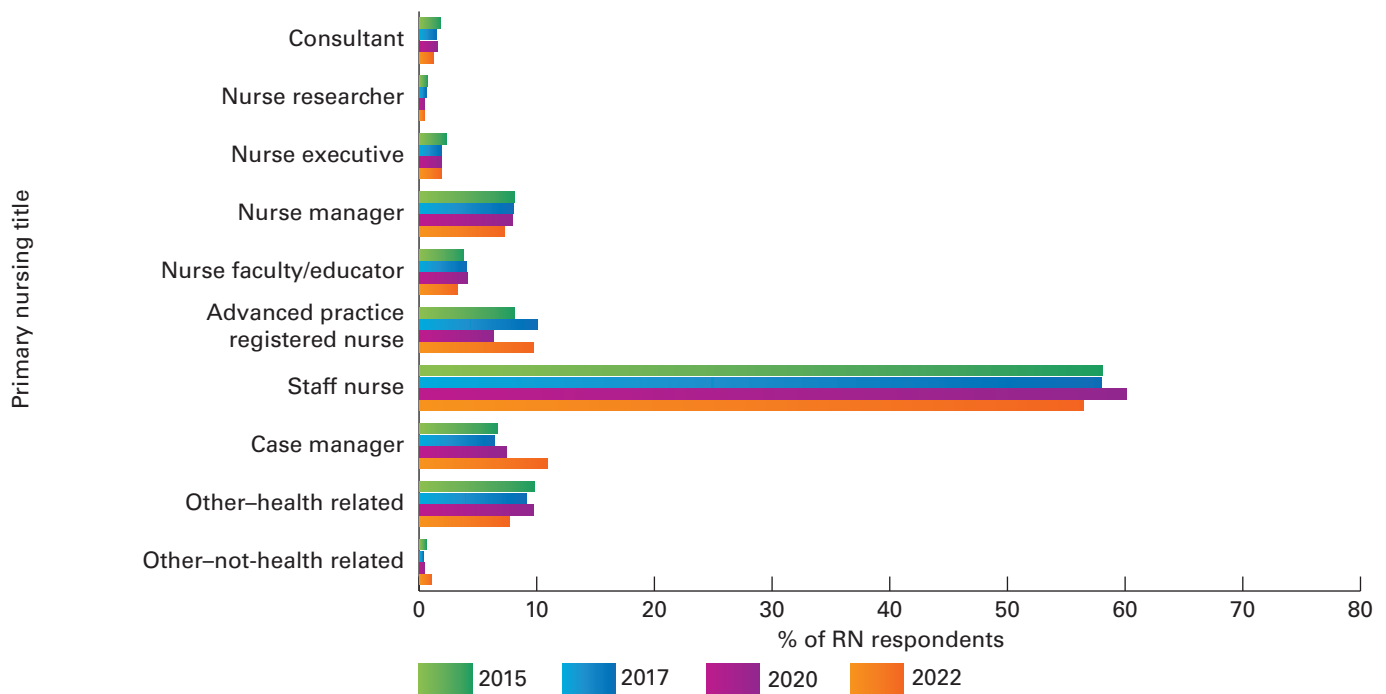
Traveling Nurse Position

In the 2022 survey, a new question was added: "Are you currently a travel nurse?" About 6% of RNs reported currently being a travel nurse (Table 30).

TABLE 30

Registered Nurses in Travel Nursing, 2022

Travel Nurse	2022	
	n	%
RN Survey Respondents	*N* = 215,429.5	
Yes	13,296.0	6.2
No	202,133.5	93.8
U.S. RN Population		
Yes	212,142	6.2
No	3,225,097	93.8

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Primary Nursing Position Specialty

In 2022, 16.5% of RNs reported that their primary practice specialty was acute care/critical care. This increased from the 13.4% reported in 2020. The second most reported specialty position in 2022 was medical-surgical at 10.0% (compared to 8.5% reported in 2020). Emergency/trauma was the third most often reported practice specialty (8.1%), an increase from 5.6% reported in 2020. The proportion of RNs reporting other nonclinical specialties grew to 5.6% of respondents in 2022 from the 3.2% reported in 2020 (Table 31 and Figure 13).

TABLE 31

Primary Nursing Position Specialty of Registered Nurses, 2015–2022

Primary Specialty	2015 (N = 36,424.1)		2017 (N = 37,484.3)		2020 (N = 32,364.8)		2022 (N = 199,133.7)	
	n	%	n	%	n	%	n	%
Acute care/critical care	4,159.1	11.4	5,239.2	14.0	4,338.5	13.4	32,897.2	16.5
Adult health	756.1	2.1	1,447.1	3.9	1,172.9	3.6	5,069.8	2.6
Anesthesia	549.9	1.5	705.5	1.9	379.4	1.2	3,516.5	1.8
Cardiology	-	-	1,291.0	3.4	1,086.0	3.4	7,394.4	3.7
Community	356.7	1.0	386.6	1.0	300.9	0.9	1,920.1	1.0
Emergency/trauma	2,026.7	5.6	2,027.3	5.4	1,818.4	5.6	16,108.5	8.1
Family health	-	-	1,243.4	3.3	801.2	2.5	5,251.3	2.6
Genetics	40.6	0.1	-	-	-	-	328.6	0.2
Geriatric/gerontology	1,754.7	4.8	1,918.5	5.1	1,614.2	5.0	8,796.8	4.4
Home health	1,604.0	4.4	1,360.1	3.6	1,226.1	3.8	5,890.7	3.0
Informatics	318.2	0.9	-	-	-	-	1,071.7	0.5
Information technology	-	-	-	-	-	-	255.7	0.1
Maternal-child health/obstetrics	1,633.9	4.5	1,778.1	4.7	1,422.3	4.4	8,892.7	4.5
Medical-surgical	3,695.7	10.1	3,203.1	8.6	2,757.8	8.5	19,876.0	10.0
Neonatal	808.4	2.2	809.5	2.2	725.4	2.2	4,750.5	2.4
Nephrology	476.4	1.3	555.7	1.5	500.7	1.6	3,237.7	1.6
Neurology/neurosurgical	337.1	0.9	-	-	-	-	1,924.3	1.0
Occupational health	280.7	0.8	339.8	0.9	314.4	1.0	1,892.8	1.0
Oncology	1,044.0	2.9	1,046.9	2.8	955.9	3.0	6,514.0	3.3
Orthopedic	436.1	1.2	-	-	-	-	2,373.4	1.2
Palliative care/hospice	529.1	1.5	643.3	1.7	522.2	1.6	4,099.7	2.1
Pediatrics	1,570.3	4.3	1,774.1	4.7	1,345.9	4.2	9,652.4	4.9
Perioperative	2,195.7	6.0	2,187.7	5.8	2,173.2	6.7	12,690.4	6.4
Primary care	1,092.5	3.0	-	-	-	-	4,661.5	2.3
Public health	466.0	1.3	472.3	1.3	428.9	1.3	3,440.5	1.7
Psychiatric/mental health/substance abuse	1,418.4	3.9	1,534.1	4.1	1,206.8	3.7	5,036.1	2.5
Radiology	191.2	0.5	-	-	-	-	376.8	0.2
Rehabilitation	717.3	2.0	725.4	1.9	541.4	1.7	1,847.2	0.9
School health	1,025.1	2.8	945.5	2.5	980.0	3.0	2,469.0	1.2
Urology	87.5	0.2	-	-	-	-	65.7	0.0
Women's health	651.7	1.8	567.1	1.5	490.5	1.5	2,111.8	1.1
Other - clinical specialties	-	-	4,507.7	12.0	4,229.5	13.1	3,566.0	1.8
Other - nonclinical specialties	-	-	775.1	2.1	1,032.1	3.2	11,154.0	5.6

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 13

Most Reported Primary Nursing Position Specialty of Registered Nurses (RNs)
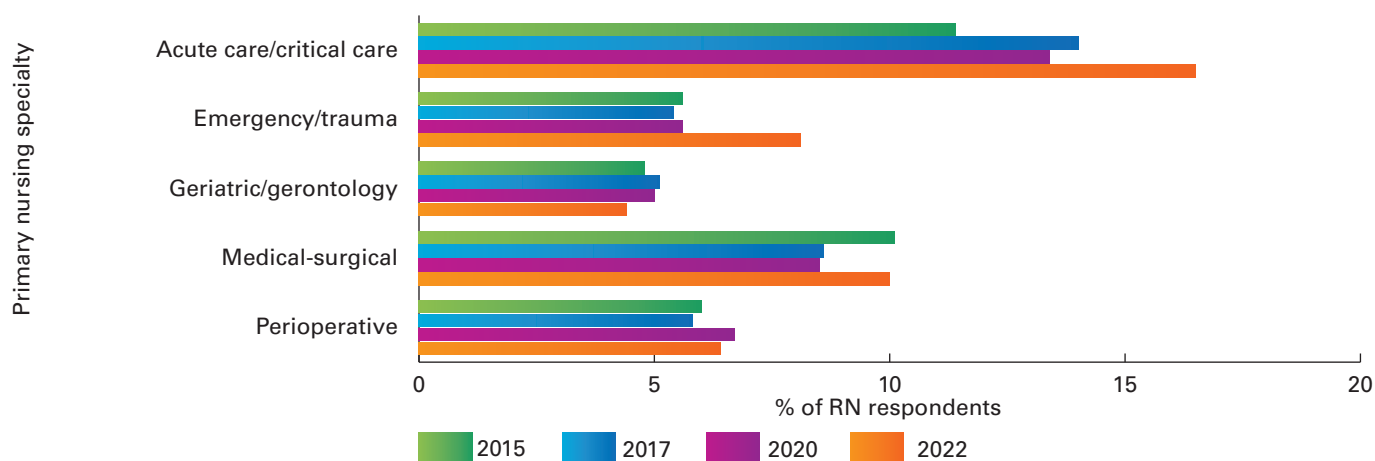
Providing Direct Patient Care—Primary Nursing Position

In 2022, 72.5% of RN respondents reported providing direct patient care in their primary nursing position. In 2020, the first year this question was asked, 68.6% of nurses said they provided direct patient care in their primary nursing position (Table 32).

TABLE 32

Registered Nurses (RNs) Providing Direct Patient Care—Primary Nursing Position, 2020–2022

Providing Direct Patient Care	2020		2022	
	n	%	*n*	%
RN Survey Respondents	*N* = 34,080.7		*N* = 215,838.4	
Yes	23,391.8	68.6	156,539.8	72.5
No	10,688.9	31.4	59,298.6	27.5
U.S. RN Population				
Yes	2,336,915	68.6	2,497,637	72.5
No	1,067,855	31.4	946,126	27.5

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Secondary Nursing Practice Position Setting

Of the 17.6% of RNs who reported having more than one nursing position (Table 26), 34.7% reported practicing in a hospital setting, 9.2% in a nursing home/extended care, and 8.8% in an ambulatory care setting. Of the more common practice settings, the proportion of RNs practicing in a nursing home/extended care setting grew 2% and those practicing in nursing schools dropped by 1.6%, from 8.7% in 2020 to 7.1% in 2022 (Table 33 and Figure 14).

TABLE 33

Secondary Nursing Practice Position Setting of Registered Nurses, 2015–2022

Secondary Practice Setting	2015 (*N* = 4,877.3)		2017 (*N* = 6,153.3)		2020 (*N* = 5,121.6)		2022 (*N* = 39,004.5)	
	n	%	*n*	%	*n*	%	*n*	%
Hospital	1,632.6	33.5	2,213.4	36.0	1,879.1	36.7	13,548.1	34.7
Nursing home/extended care	277.2	5.7	456.7	7.4	363.8	7.1	3,575.2	9.2
Assisted living facility	58.9	1.2	58.4	1.0	58.3	1.1	815.6	2.1
Home health	577.5	11.8	555.7	9.0	430.1	8.4	2,977.1	7.6
Hospice	-	-	185.9	3.0	139.3	2.7	1,122.3	2.9
Correctional facility	72.2	1.5	68.3	1.1	46.2	0.9	403.5	1.0

Secondary Nursing Practice Position Setting of Registered Nurses, 2015–2022 *(continued)*

Secondary Practice Setting	2015 (N = 4,877.3)		2017 (N = 6,153.3)		2020 (N = 5,121.6)		2022 (N = 39,004.5)	
	n	%	*n*	%	*n*	%	*n*	%
School of nursing	519.7	10.7	493.6	8.0	446.2	8.7	2,776.4	7.1
Public health	38.1	0.8	89.2	1.5	68.9	1.3	935.7	2.4
Dialysis center	-	-	87.7	1.4	54.7	1.1	521.7	1.3
Community health	191.1	3.9	209.6	3.4	121.6	2.4	1,002.7	2.6
School health service	171.7	3.5	173.0	2.8	113.2	2.2	1,006.0	2.6
Occupational health	39.0	0.8	57.1	0.9	36.3	0.7	564.0	1.5
Ambulatory care setting	451.2	9.3	556.7	9.1	492.6	9.6	3,438.9	8.8
Insurance claims/benefits	39.4	0.8	51.7	0.8	44.1	0.9	565.5	1.5
Policy/planning/regulatory/licensing agency	6.1	0.1	7.1	0.1	22.5	0.4	145.2	0.4
Other	802.5	16.5	889.3	14.5	806.9	15.8	5,606.5	14.4

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 14

Most Reported Secondary Nursing Practice Position Setting of Registered Nurses (RNs)
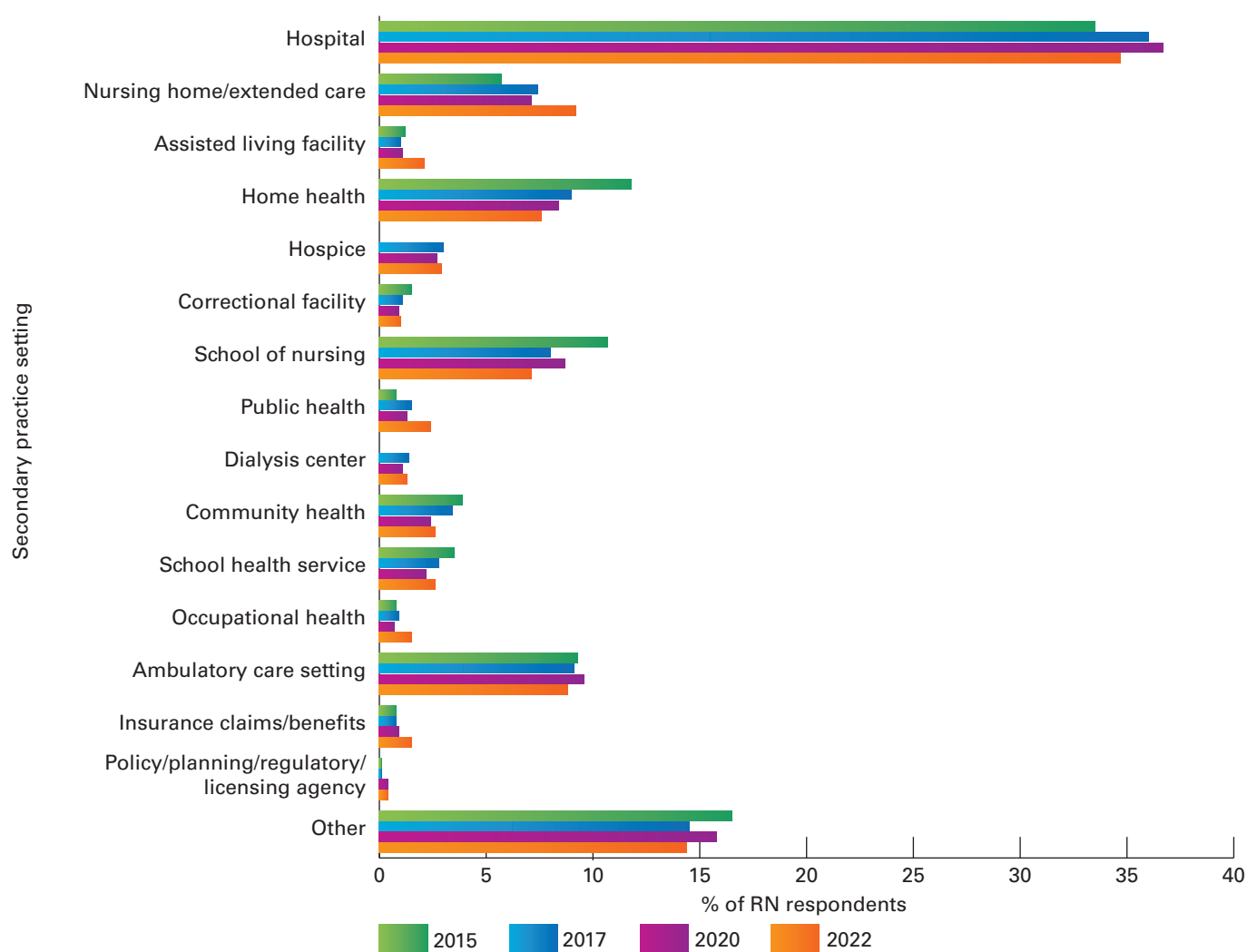
Secondary Nursing Position Title

Of those RNs who had more than one nursing position, 52.9% of respondents were staff nurses. This represents a decline from 2020 when 57.6% of nurses were staff nurses. About 15% of RN respondents had other health-related titles and 12.6% were APRNs. As with the primary position titles previously listed, the proportion of respondents reporting being an APRN increased by 3.9% from 2020 (Table 34 and Figure 15).

TABLE 34

Secondary Nursing Practice Position Title of Registered Nurses, 2015–2022

Secondary Title	2015 (N = 4,857.8)		2017 (N = 6,145.9)		2020 (N = 5,080.8)		2022 (N = 38,665.7)	
	n	%	*n*	%	*n*	%	*n*	%
Consultant	216.0	4.5	201.2	3.3	165.6	3.3	1,085.5	2.8
Nurse researcher	28.9	0.6	36.2	0.6	21.9	0.4	300.4	0.8
Nurse executive	46.6	1.0	34.6	0.6	40.3	0.8	245.2	0.6
Nurse manager	143.2	3.0	235.4	3.8	196.2	3.9	1,408.7	3.6
Nurse faculty/educator	482.0	9.9	601.5	9.8	547.0	10.8	3,135.3	8.1
APRN	521.8	10.7	743.0	12.1	443.9	8.7	4,887.6	12.6
Staff nurse	2,767.9	57.0	3,430.8	55.8	2,924.9	57.6	20,461.2	52.9
Case manager	157.8	3.4	256.3	4.2	205.5	4.1	866.9	2.2
Other – health related	475.0	9.8	573.7	9.3	490.2	9.7	5,800.5	15.0
Other – not health related	18.6	0.4	33.3	0.5	45.3	0.9	474.2	1.2

Note. Survey participants were asked about their secondary nursing practice title only if they were actively employed in nursing.

FIGURE 15

Most Reported Secondary Nursing Position Title of Registered Nurses (RNs)
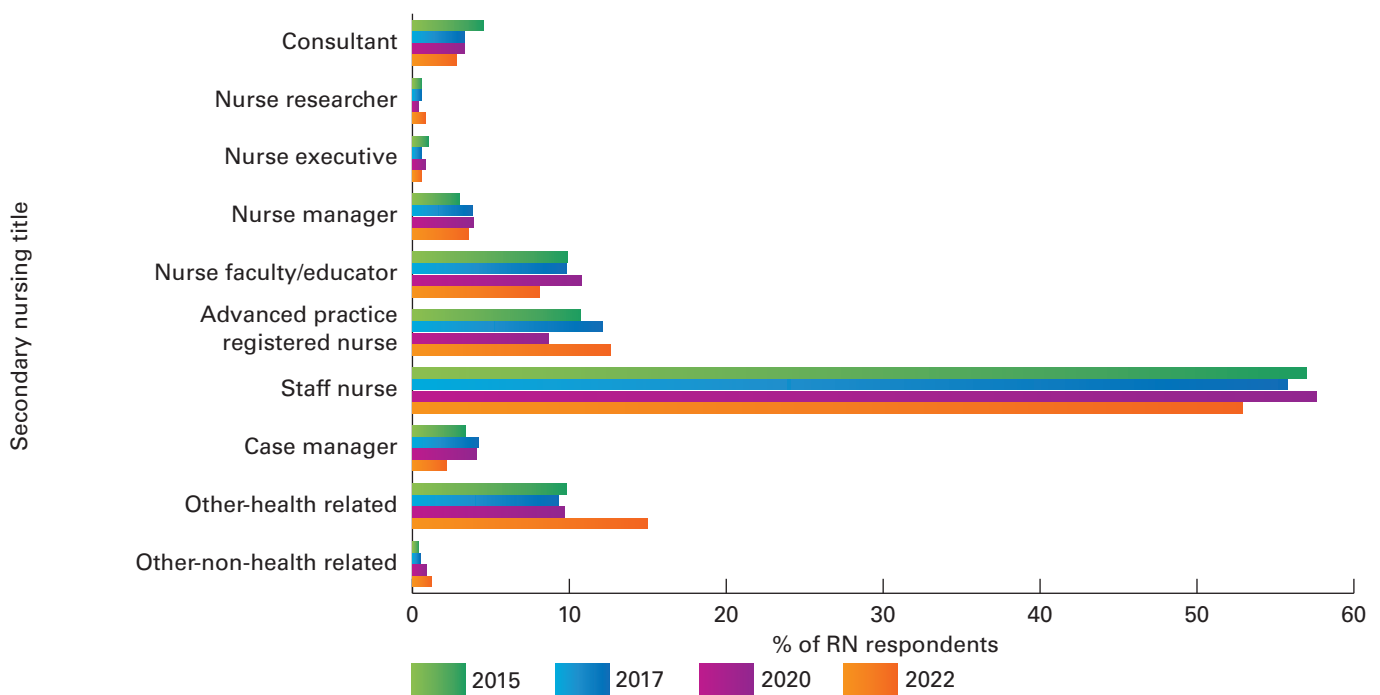
Providing Direct Patient Care—Secondary Nursing Practice Position

In 2022, 75.4% of RN respondents reported providing direct patient care in their secondary nursing position. In 2020, the first year this question was asked, 72.0% of nurses said they provided direct patient care in their secondary nursing position (Table 35).

TABLE 35

Providing Direct Patient Care—Secondary Nursing Position of Registered Nurses, 2020–2022

Providing Direct Patient Care	2020 (N = 5,076.1)		2022 (N = 35,791.8)	
	n	%	n	%
Yes	3,653.3	72.0	26,985.5	75.4
No	1,422.7	28.0	8,806.3	24.6

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Annual Earnings

2022 Pretax Annual Earnings From Primary Nursing Position

The median pretax annual earnings for RNs grew to $80,000 in 2022. Pretax wages grew by 14% since 2020 when the median pretax annual wage was $70,000. The percentage of respondents earning less than $40,000 annually (7.5%) decreased by 3.9%; those earning between $40,000 and $60,000 (13.9%) decreased by 5.3% between 2020 and 2022. The percentage of respondents in categories making between $60,000 and $80,000 per year (27.7%) also showed a decline of 2.2%. Between 2020 and 2022, the proportion of RNs making between $80,00 and $100,000 (22.3%) increased by 3.2%, and those making more than $100,000 per year (28.7%) increased by 8.2% (Table 36 and Figure 16).

TABLE 36

Annual Earnings of Registered Nurses (RNs) From Primary Nursing Position, 2015–2022

Annual Earnings	2015		2017		2020		2022	
	n	%	n	%	n	%	n	%
RN Survey Respondents	N = 32,455.7		N = 35,745.6		N = 29,453.8		N = 181,491.9	
<$40,000	4,711.3	14.5	4,217.8	11.8	3,355.6	11.4	13,599.2	7.5
$40,000 to <$60,000	8,436.8	26.0	8,243.4	23.1	5,639.5	19.2	25,203.8	13.9
$60,000 to <$80,000	9,202.0	28.4	10,213.3	28.6	8,808.0	29.9	50,193.6	27.7
$80,000 to <$100,000	5,279.8	16.3	6,386.3	17.9	5,617.0	19.1	40,376.6	22.3
≥$100,000	4,825.7	14.9	6,684.8	18.7	6,033.8	20.5	52,118.8	28.7
U.S. RN Population								
<$40,000	377,964	14.5	342,160	11.8	335,235	11.4	216,979	7.5
$40,000 to <$60,000	676,837	26.0	668,729	23.1	563,404	19.2	402,133	13.9
$60,000 to <$80,000	738,224	28.4	828,530	28.6	879,947	29.9	800,853	27.7
$80,000 to <$100,000	423,568	16.3	518,071	17.9	561,156	19.1	644,220	22.3
≥$100,000	387,136	14.9	542,292	18.7	602,796	20.5	831,570	28.7

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses.

FIGURE 16

Annual Earnings of Registered Nurses (RNs) for Primary Position
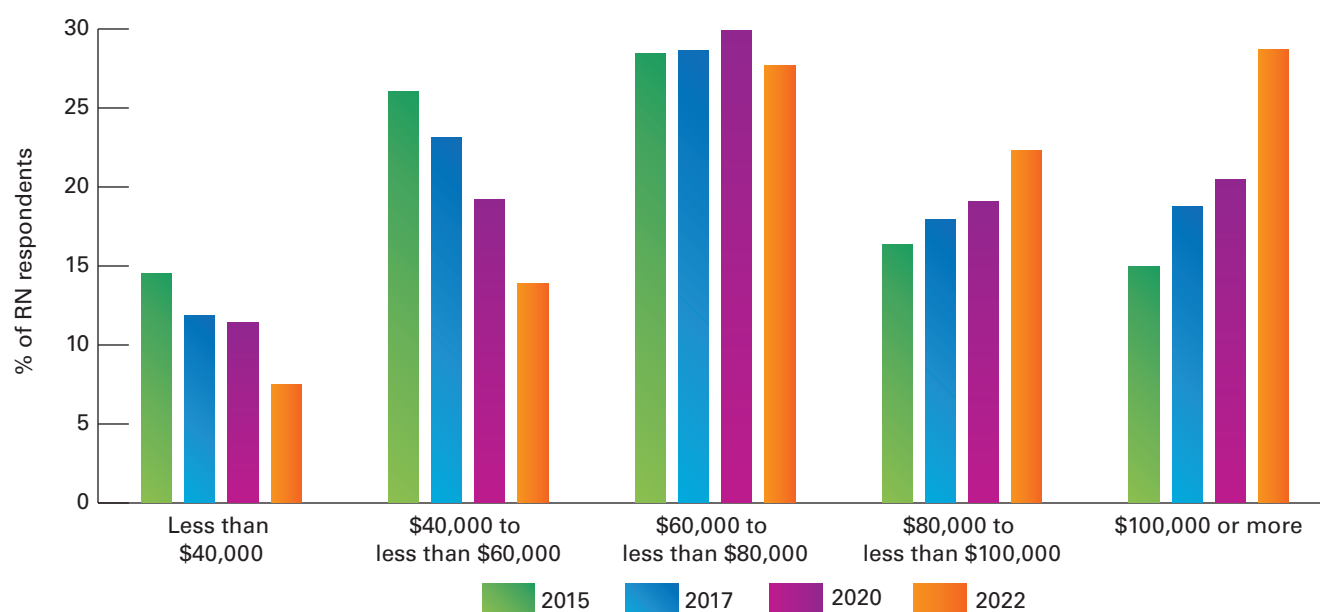
Earnings by Gender and Specialty

The specialty with the highest median annual wage was anesthesia at $188,000. Men have higher earnings across most specializations, where women earn 85% of men's median wage. In 2022, women earned more in the specialties of genetics, geriatrics, neonatal, nephrology, neurology, rehabilitation, and radiology (Table 37).

TABLE 37

Median Annual Earnings of Registered Nurses for Primary Nursing Position by Nurse Gender and Specialty, 2022

Specialty	Male		Female		Nonbinary		Total	
	n	*Mdn*	*n*	*Mdn*	*n*	*Mdn*	*n*	*Mdn*
Acute care/critical care	349	$90,000	2,123	$80,000	10	$74,000	2,482	$80,000
Adult health	27	$90,000	337	$75,000	2	$109,000	366	$75,500
Anesthesia	91	$220,000	171	$180,000	1	$130,000	263	$188,000
Cardiology	80	$90,000	540	$75,000	2	$64,000	622	$75,500
Community	6	$70,500	157	$67,000	1	$74,000	164	$67,500
Emergency/trauma	184	$88,000	991	$78,000	8	$90,000	1,183	$80,000
Family health	20	$117,500	426	$81,150	1	$3,500	447	$84,000
Genetics	4	$73,000	27	$75,000	-	-	31	$75,000
Geriatric/gerontology	57	$70,000	861	$75,000	2	$90,000	920	$75,000
Home health	42	$77,500	518	$73,500	3	$90,000	563	$74,000
Informatics	12	$102,500	92	$95,500	-	-	104	$96,000
Information technology	3	$93,500	22	$89,250	-	-	25	$93,500
Maternal-child health/obstetrics	4	$112,500	795	$70,000	-	-	799	$70,000
Medical-surgical	145	$79,000	1,376	$70,000	2	$92,000	1,524	$70,000
Neonatal	6	$68,500	336	$78,000	-	-	342	$78,000
Nephrology	24	$80,000	234	$84,000	-	-	258	$82,500
Neurology/neurosurgical	18	$79,000	169	$80,496	1	$54,000	188	$80,000
Occupational health	14	$97,500	163	$85,000	-	-	177	$86,000
Oncology	29	$80,000	512	$77,500	4	$72,500	545	$78,000
Orthopedic	15	$89,000	175	$72,500	1	$30,000	191	$75,000
Palliative care/hospice	22	$72,250	333	$76,000	1	$85,000	356	$75,000

Median Annual Earnings of Registered Nurses for Primary Nursing Position by Nurse Gender and Specialty, 2022 *(continued)*

Specialty	Male		Female		Nonbinary		Total	
	n	*Mdn*	*n*	*Mdn*	*n*	*Mdn*	*n*	*Mdn*
Pediatrics	30	$83,500	719	$70,000	4	$82,500	753	$70,000
Perioperative	98	$90,000	985	$75,000	6	$63,000	1,089	$75,000
Primary care	39	$100,000	443	$83,000	1	$72,000	483	$85,000
Public health	27	$90,000	305	$73,000	-	-	332	$74,875
Psychiatric/mental health/substance abuse	69	$95,000	287	$80,000	1	$345,000	357	$82,000
Radiology	4	$64,000	29	$82,000	-	-	33	$80,000
Rehabilitation	17	$72,000	123	$77,000	-	-	140	$76,500
School health	7	$59,000	191	$54,000	-	-	198	$54,500
Urology	2	$82,250	12	67000	-	-	14	$67,000
Women's health	1	$120,000	125	$65,000	2	$78,500	128	$65,050
Other - clinical specialties	16	$92,250	160	$83,000	-	-	176	$84,750
Other - nonclinical specialties	102	$92,750	899	$77,000	5	$55,000	1,006	$78,000
Total	1,564	$89,000	14,636	$76,000	59	$74,000		

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses.

Earnings by Highest Education

As in previous surveys, the 2022 results show increases in median wages with higher-level degrees. RNs holding a DNP reported the highest earnings at $110,000 per year. RNs with a PhD reported an annual media wage of $105,000, while RNs holding a master's or doctorate other than a DNP or PhD earned $100,000. Baccalaureate-educated RNs earned $75,000, while their associate degree in nursing (ADN) and diploma education colleagues made $70,000 per year. Overall, wages across educational attainment rose in 2022 over their 2020 earnings (Table 38).

TABLE 38

Median Annual Earnings of Registered Nurses for Primary Nursing Position by Nurses' Highest Education, 2017–2022

Highest Education	2017		2020		2022	
	n	*Mdn*	*n*	*Mdn*	*n*	*Mdn*
Diploma	1,358	$72,900	1,318	$65,000	635	$70,000
Associate degree	8,303	$65,000	8,308	$63,000	4,847	$70,000
Baccalaureate degree	12,714	$68,000	14,964	$67,000	10,183	$75,000
Master's degree	4,999	$95,000	4,617	$90,000	3,620	$100,000
Doctoral degree – PhD	200	$100,000	209	$93,600	151	$105,000
Doctoral degree – DNP	413	$104,000	519	$100,000	411	$110,000
Doctoral degree – nursing other	37	$96,000	40	$96,000	43	$100,000

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses. Regarding education, in the 2013 and 2015 surveys, a single question of "What is your highest level of education?" was asked with the set of possible responses including both nursing and non-nursing degrees. The degree types were separated beginning with the 2017 survey.

Earnings by State

Annual median wages grew in 2022 over 2020 earnings in every state except for New Hampshire and Tennessee. As in previous surveys, the states with the highest reported median wages were California ($104,000), Hawaii ($100,000), Oregon ($91,500), New York ($90,000), and the District of Columbia ($90,000). States with the lowest annual median wages were Iowa ($68,000), Alabama ($70,000), North Dakota ($70,000), Tennessee ($70,000), and Nebraska ($70,441). In contrast to previous reports where the lowest earning state saw the largest percent increase, in 2022, the highest wage states tended to also see the largest percent increases (e.g., California at 15.6%, Oregon at 14.4%, and New York at 12.5%) while the lowest earning states saw the lowest percent increase (e.g., Alabama at 2.9%, Nebraska at 3.6%, and Tennessee at 0%) (Table 39).

TABLE 39

Median Annual Earnings in Primary Nursing Position by Jurisdictions Where Registered Nurses Are Currently Practicing, 2015–2022

Jurisdiction	2015	2017	2020	2022	Jurisdiction	2015	2017	2020	2022
Alabama	$55,000	$60,000	$68,000	$70,000	Montana	$58,000	$60,000	$66,000	$74,800
Alaska	$70,000	$76,000	$79,000	$85,000	Nebraska	$54,000	$60,000	$68,000	$70,441
Arizona	$69,000	$70,500	$75,000	$81,000	Nevada	$72,000	$77,000	$78,000	$83,750
Arkansas	$56,000	$61,605	$68,000	$70,765	New Hampshire	$64,000	$66,500	$75,000	$75,000
California	$90,000	$88,000	$90,000	$104,000	New Jersey	$76,000	$75,915	$80,000	$88,000
Colorado	$63,000	$65,000	$74,030	$79,000	New Mexico	$62,000	$69,500	$73,000	$81,125
Connecticut	$75,000	$75,000	$80,000	$86,500	New York	$77,000	$80,000	$80,000	$90,000
Delaware	$71,000	$71,900	$75,000	$80,000	North Carolina	$58,890	$61,000	$69,000	$78,316
District of Columbia	$75,000	$79,000	$80,000	$90,000	North Dakota	$54,000	$60,000	$65,000	$70,000
Florida	$60,000	$65,500	$72,000	$77,751	Ohio	$58,000	$65,000	$70,000	$74,000
Georgia	$64,000	$68,000	$75,000	$80,000	Oklahoma	$58,326	$64,000	$70,000	$75,000
Hawaii	$82,000	$85,000	$90,000	$100,000	Oregon	$75,000	$80,000	$80,000	$91,500
Idaho	$60,000	$62,000	$70,000	$73,000	Pennsylvania	$62,000	$70,000	$75,000	$81,000
Illinois	$65,000	$67,000	$73,169	$79,000	Rhode Island	$70,000	$70,000	$77,400	$82,000
Indiana	$53,000	$64,000	$69,000	$75,000	South Carolina	$57,000	$64,000	$69,609	$78,000
Iowa	$51,662	$58,000	$63,000	$68,000	South Dakota	$51,000	$54,000	$62,000	$71,025
Kansas	$54,000	$64,000	$65,000	$73,000	Tennessee	$55,000	$62,000	$70,000	$70,000
Kentucky	$60,000	$64,000	$68,000	$74,000	Texas	$68,700	$72,000	$75,000	$80,000
Louisiana	$60,000	$65,000	$68,000	$78,000	Utah	$53,000	$65,000	$68,000	$73,000
Maine	$60,000	$63,000	$68,800	$75,000	Vermont	$62,000	$61,000	$73,492	$76,000
Maryland	$70,000	$74,466	$78,000	$80,000	Virginia	$60,000	$69,000	$75,000	$79,000
Massachusetts	$75,633	$76,000	$79,655	$83,000	Washington	$70,000	$75,000	$80,000	$86,000
Michigan	$60,000	$67,000	$73,000	$78,000	West Virginia	$55,000	$62,000	$68,000	$72,000
Minnesota	$64,870	$66,000	$74,000	$77,000	Wisconsin	$60,000	$63,000	$70,500	$75,000
Mississippi	$58,000	$60,000	$68,000	$73,000	Wyoming	$64,000	$65,000	$70,000	$81,000
Missouri[a]	-	-	$68,640	$81,000	Northern Mariana Islands	$35,000	$41,600	$60,000	$64,000

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses.

[a] Missouri did not participate in the 2015 and 2017 surveys.

Earnings by Years Licensed and Age

Median annual earnings tended to increase with both age and experience. However, an examination of Table 40 suggests these increases are more dependent on experience than on age. Earnings grow consistently with experience, while growth with age varies and begins to decrease after the age of 60 years (Table 40).

TABLE 40

Median Annual Earnings of Registered Nurses for Primary Nursing Position by Nurses' Years Licensed and Age, 2022

Age, y	Number of Years Licensed									
	0–1		2–5		6–10		≥11		Total	
	n	*Mdn*	*n*	*Mdn*	*n*	*Mdn*	*n*	*Mdn*	*n*	*Mdn*
18–29	362	$57,000	1,137	$65,000	301	$70,000	3	$90,000	1,803	$64,000
30–34	118	$60,000	603	$66,000	1,098	$71,000	263	$75,000	2,082	$70,000
35–39	66	$58,350	355	$70,000	596	$75,000	1,194	$80,000	2,211	$75,000
40–44	51	$62,000	225	$70,000	446	$78,000	1,353	$81,000	2,075	$80,000
45–49	39	$60,000	151	$70,000	263	$78,000	1,459	$85,000	1,912	$80,626
50–54	22	$59,000	97	$72,000	203	$78,000	1,731	$88,000	2,053	$85,000
55–59	9	$60,000	58	$76,500	135	$84,000	1,914	$87,341	2,116	$86,000
60–64	2	$77,500	22	$79,000	74	$77,362	2,201	$84,000	2,299	$84,000
≥65	7	$65,000	19	$63,000	33	$69,000	1,906	$79,500	1,965	$70,000
Total	676	$60,000	2,667	$68,000	3,149	$75,000	12,024	$82,000		

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses.

Earnings by APRNs

CRNAs continue to report the highest earnings among APRNs (*Mdn*, $197,500 in 2022), with NPs reporting the second highest wages (*Mdn*, $108,000 in 2022). While earnings grew in each APRN role in 2022, earnings for CNMs and CNSs grew the fastest in 2022 at 18.3% and 11.3%, respectively (Table 41).

TABLE 41

Median Annual Earnings for Primary Nursing Position by APRN Role, 2017–2022

APRN role	2017		2020		2022	
	n	*Mdn*	*n*	*Mdn*	*n*	*Mdn*
CNP	2,982	$100,000	1,958	$100,000	1,755	$108,000
CNS	644	$88,000	448	$80,000	399	$89,000
CRNA	557	$171,000	341	$180,000	244	$197,500
CNM	186	$97,750	116	$86,000	74	$101,739

Note. APRN = advanced practice registered nurse; CNP = certified nurse practitioner; CNS = clinical nurse specialist; CRNA = certified registered nurse anesthetist; CNM = certified nurse midwife. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses.

Telehealth Utilization

Percentage of Time Providing Telehealth

Telehealth utilization by RNs remains relatively unchanged from previous years, with about half of RNs (49.9%) not providing services via telehealth. However, the proportion of nurses who reported utilizing telehealth all of the time rose to 11.8%, an increase of 1.8% from the 2020 survey. It remains likely that the increase in telehealth utilization is only among advanced practice degrees and those practicing in ambulatory and primary care settings (Table 42 and Figure 17).

TABLE 42

Percentage of Time Registered Nurses (RNs) Reported Providing Telehealth, 2015–2022

Provides Telehealth	2015		2017		2020		2022	
	n	%	n	%	n	%	n	%
RN Survey Respondents	N = 37,354.6		N = 39,441.6		N = 33,582.4		N = 203,074.2	
Never	19,119.1	51.2	18,095.1	45.9	17,460.2	52.0	101,365.6	49.9
1%–25%	11,710.7	31.4	12,490.6	31.7	8,960.8	26.7	52,667.1	25.9
26%–50%	2,560.5	6.9	2,851.2	7.2	2,184.9	6.5	17,701.3	8.7
51%–75%	1,785.3	4.8	2,201.6	5.6	1,634.5	4.9	7,307.6	3.6
76%–100%	2,179.1	5.8	3,803.2	9.6	3,341.9	10.0	24,032.6	11.8
U.S. RN Population								
Never	1,533,811	51.2	1,467,920	45.9	1,744,329	52.0	1,617,317	49.9
1%–25%	803,549	31.4	1,013,268	31.7	895,212	26.7	840,319	25.9
26%–50%	175,691	6.9	231,294	7.2	218,278	6.5	282,429	8.7
51%–75%	122,502	4.8	178,602	5.6	163,292	4.9	116,595	3.6
76%–100%	149,519	5.8	308,529	9.6	333,866	10.0	383,446	11.8

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

FIGURE 17

Percentage of Time Registered Nurses (RNs) Report Providing Telehealth
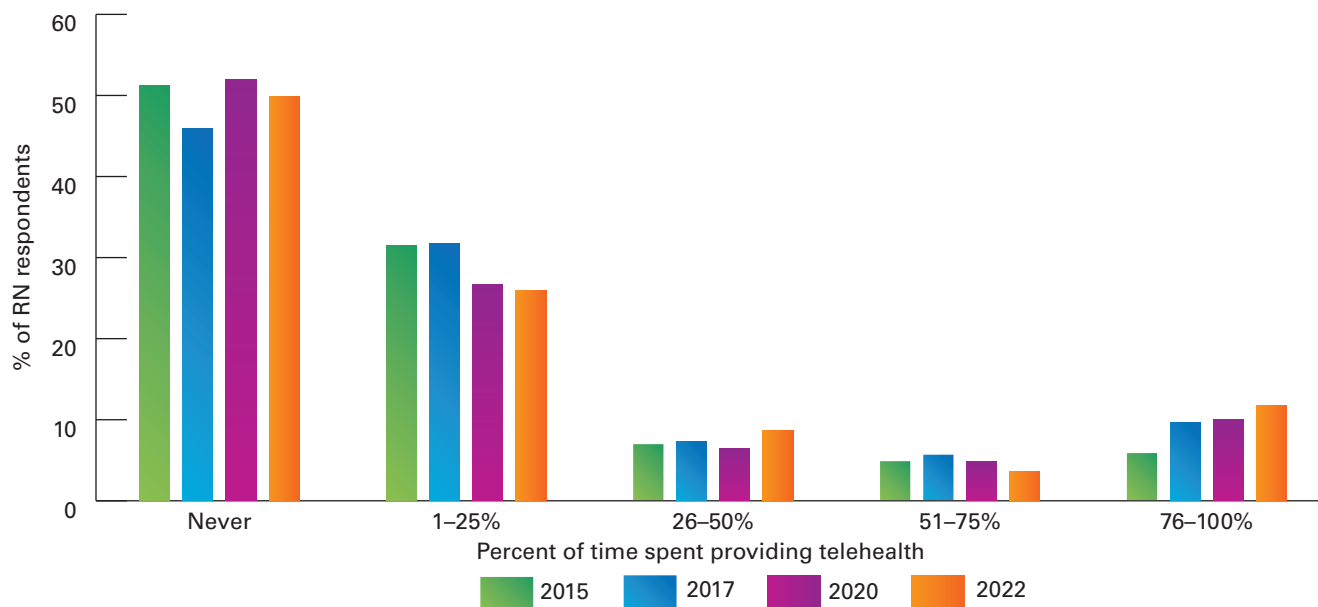
Telehealth Across State Borders

As with the provisioning of services via telehealth in general (Table 42), more than half (54.7%) of RNs do not utilize telehealth to provide services to patients across state lines. Thirty-one percent of RNs report spending between 1% and 25% of their time providing services to patients in other states through telehealth. Utilization of services across state borders through telehealth is similar to utilization reported in 2020 (Table 43 and Figure 18).

TABLE 43

Percentage of Time Registered Nurses Spend Providing Telehealth Across State Borders, 2015–2022

Provides Telehealth	2015 (N = 18,456.1)		2017 (N = 17,573.3)		2020 (N = 13,965.3)		2022 (N = 77,135.0)	
	n	%	*n*	%	*n*	%	*n*	%
Never	11,186.7	60.6	9,535.0	54.3	7,395.6	53.0	42,175.6	54.7
1%–25%	5,843.2	31.7	6,294.5	35.8	4,663.6	33.4	23,898.1	31.0
26%–50%	626.8	3.4	692.2	3.9	678.0	4.9	4,913.7	6.4
51%–75%	298.5	1.6	414.0	2.4	366.9	2.6	1,352.0	1.8
76%–100%	500.9	2.7	637.6	3.6	861.2	6.2	4,795.6	6.2

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

FIGURE 18

Percentage of Time Registered Nurses (RNs) Spend Providing Telehealth Across State Borders
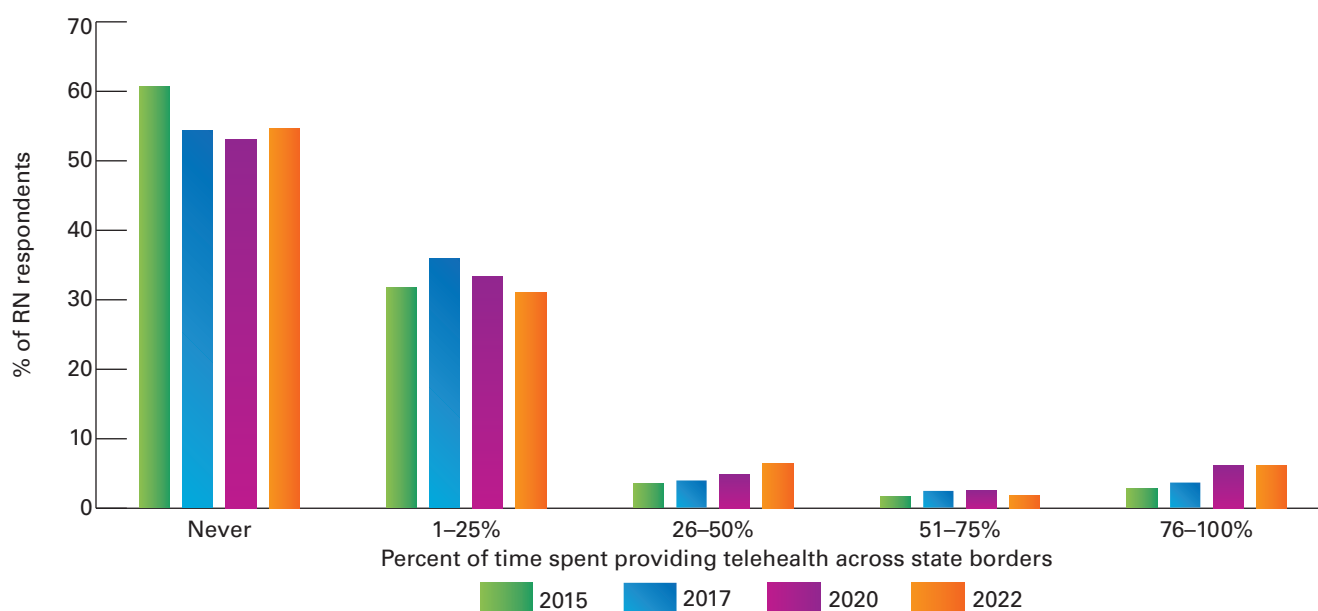
Telehealth Across International Borders

Less than 10% of RNs in the United States provide services via telehealth across international borders. This rate has changed little from previous surveys (Table 44 and Figure 19).

TABLE 44

Percentage of Time Registered Nurses Spend Providing Telehealth Across International Borders, 2015–2022

Provides Telehealth	2015 (N = 18,096.1)		2017 (N = 16,369.8)		2020 (N = 13,208.2)		2022 (N = 64,434.9)	
	n	%	*n*	%	*n*	%	*n*	%
Never	16,707.2	92.3	14,548.6	88.9	12,087.2	91.5	58,397.1	90.6
1%–25%	1,194.7	6.6	1,488.2	9.1	965.9	7.3	4,681.2	7.3
26%–50%	96.3	0.5	129.4	0.8	74.0	0.6	616.4	1.0
51%–75%	33.7	0.2	103.7	0.6	32.9	0.3	278.1	0.4
76%–100%	64.3	0.4	99.8	0.6	48.3	0.4	462.2	0.7

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

FIGURE 19

Percentage of Time Registered Nurses (RNs) Spend Providing Telehealth Across National Boarders
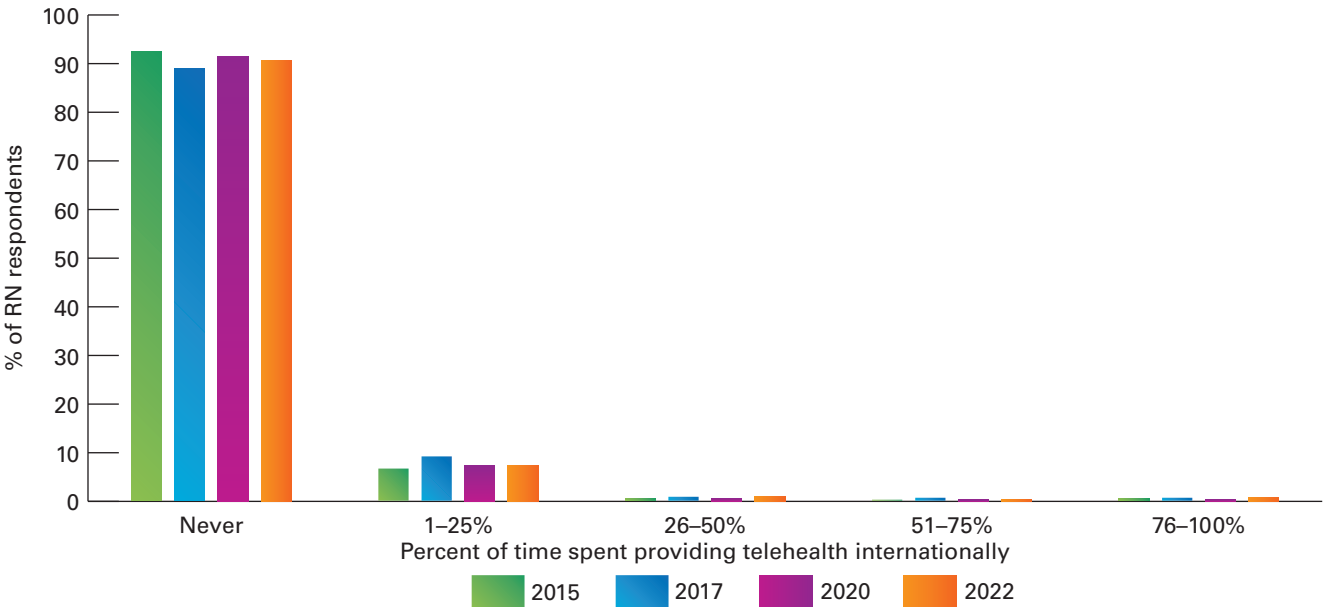
Modes of Communication Used for Telehealth

As seen in previous years, the use of the telephone is the most common mode (88.0%) of communication for telehealth provision. The use of video calls was the second most common mode (35.4%) and has increased markedly in use since 2020 (11.0%). Email was the third most common mode at 33.4% and was relatively unchanged since 2020. The use of electronic messaging was used in 32.7% of telehealth service provision and had increased by 8.2% since 2020 (Table 45 and Figure 20).

TABLE 45

Modes of Communication Used for Telehealth by Registered Nurses, 2015–2022

Mode of Telehealth	2015 (N = 15,864.1)		2017 (N = 17,066.0)		2020 (N = 13,775.4)		2022 (N = 83,950.6)	
	n	%	*n*	%	*n*	%	*n*	%
Electronic messaging	2,954.0	18.6	3,599.6	21.1	3,379.3	24.5	27,458.1	32.7
VoIP	528.7	3.3	817.3	4.8	11,297.7	8.7	0.0	0.0
Virtual ICU	167.7	1.1	276.9	1.6	316.3	2.3	3,046.7	3.6
Telephone	15,406.7	97.1	16,143.9	94.6	12,893.3	93.6	73,855.0	88.0
Email	5,128.2	32.3	5,574.4	32.7	4,497.9	32.7	28,028.3	33.4
Video call	463.7	2.9	619.8	3.6	1,517.1	11.0	29,677.6	35.4
Other	1,070.9	6.8	926.4	5.4	753.5	5.5	5,561.9	6.6

Note. VoIP = voice over internet protocol; ICU = intensive care unit.

FIGURE 20

Modes of Communication Used by Registered Nurses (RNs) for Telehealth
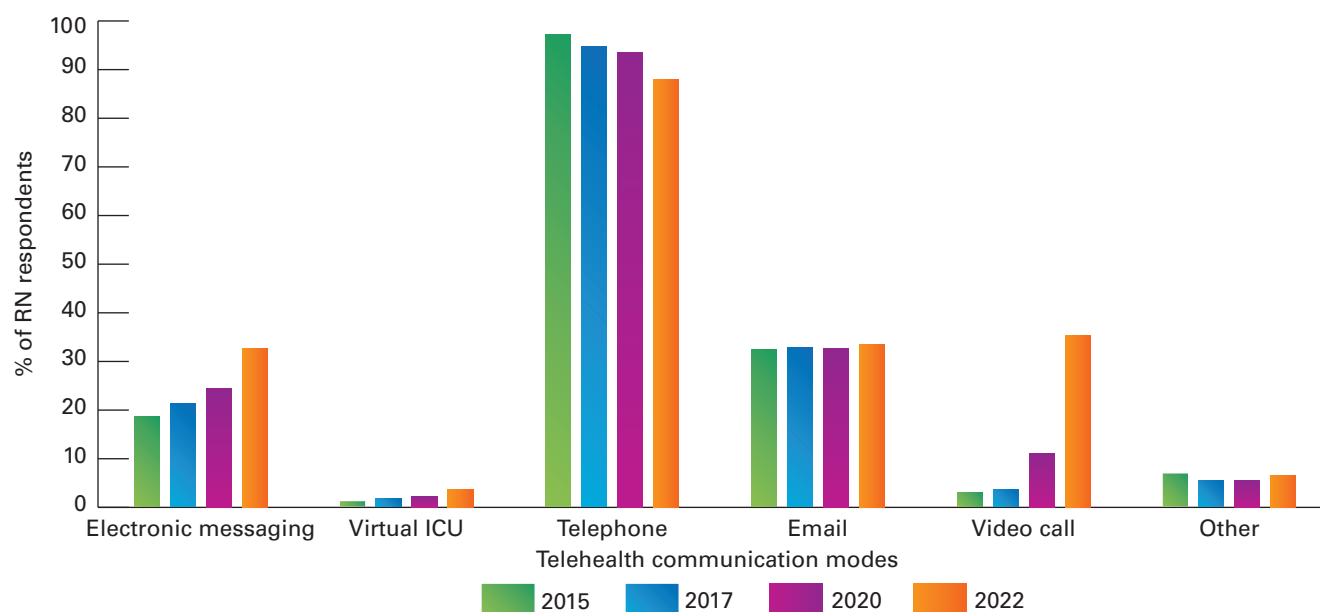
Note. VoIP = voice over internet protocol; ICU = intensive care unit.

Impact of the COVID-19 Pandemic

Impact on Employment

The coronavirus pandemic affected RNs mostly through its impact on their workload. More than 60% of RNs reported an increase in their workload due to the pandemic. The next most-reported impact was a change in practice setting (16%). About 12% of RNs reported that the pandemic had no impact on their employment (Table 46).

TABLE 46

Impact of COVID-19 Pandemic on Registered Nurse (RN) Employment, 2022

Impact	2022	
	n	%
RN Survey Respondents	*N* = 250,709.3	
My workload increased	154,905.6	61.8
I became a travel nurse	13,434.5	5.4
I changed my practice setting	39,109.8	15.6
I started doing telehealth	15,268.1	6.1
I left nursing	6,719.7	2.7
I retired	15,035.5	6.0
No impact	31,184.7	12.4
Other	43,185.8	17.2
U.S. RN Population		
My workload increased	2,471,562	61.8
I became a travel nurse	214,351	5.4
I changed my practice setting	624,007	15.6
I started doing telehealth	243,606	6.1
I left nursing	107,215	2.7
I retired	239,895	6.0

(continued)

Impact of COVID-19 Pandemic on Registered Nurse (RN) Employment, 2022 *(continued)*

Impact	2022	
	n	%
No impact	497,561	12.4
Other	689,042	17.2

Note. Respondents were asked to select all that apply. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

How Often Are You Emotionally Drained?

About a quarter (24%) of RNs reported they were emotionally drained from work every day and another 27% reported they were emotionally drained a few times a week. Thus, more than half of RNs reported they were emotionally drained from work at least few times every week. Only 5% reported never feeling emotionally drained from work (Table 47).

TABLE 47

Registered Nurses Who Reported Feeling Emotionally Drained From Work, 2022

Felt Emotionally Drained	2022 (*N* = 239,525.5)	
	n	%
Never	11,997.6	5.0
A few times a year	22,007.6	9.2
Once a month or less	18,481.9	7.7
A few times a month	37,914.3	15.8
Once a week	27,374.7	11.4
A few times a week	64,472.9	26.9
Every day	57,276.6	23.9

Note. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

How Often Do You Feel Used Up?

Two-thirds of RNs reported feeling used up at the end of their workday at least one day a week. Only 5.6% reported never feeling used up at the end of their workday (Table 48).

TABLE 48

Registered Nurses Who Reported Feeling Used Up at the End of Their Workday, 2022

Felt Used Up	2022 (*N* = 238,535.4)	
	n	%
Never	13,423.1	5.6
A few times a year	17,208.9	7.2
Once a month or less	15,702.6	6.6
A few times a month	30,373.2	12.7
Once a week	26,609.1	11.2
A few times a week	62,924.5	26.4
Every day	72,293.9	30.3

Note. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

How Often Do You Feel Fatigued When You Get Up?

More than a quarter (26.3%) of RNs reported feeling fatigued when they get up and have to face another day on the job every day. Another 23.3% reported feeling fatigued when they get up and have to face another day on the job a few times a week. Only 8.2% reported never feeling fatigued when they get up and must face another day on the job (Table 49).

TABLE 49

Registered Nurses Who Reported Feeling Fatigued When They Get Up, 2022

Felt Fatigue	2022 (*N* = 238,780.7)	
	n	%
Never	19,594.7	8.2
A few times a year	21,548.7	9.0
Once a month or less	19,788.0	8.3
A few times a month	31,919.5	13.4
Once a week	27,482.0	11.5
A few times a week	55,652.9	23.3
Every day	62,795.0	26.3

Note. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

How Often Do You Feel Burned-Out From Work?

A quarter (25.8%) of RNs reported feeling burned-out from work every day and 19.4% also reported feeling burned-out a few times a week. About 11% reported never feeling burned-out from work (Table 50).

TABLE 50

Registered Nurses Who Reported Feeling Burned-Out From Work, 2022

Felt Burned-Out	2022 (*N* = 238,420.3)	
	n	%
Never	26,003.5	10.9
A few times a year	29,406.4	12.3
Once a month or less	21,739.6	9.1
A few times a month	30,730.1	12.9
Once a week	22,876.1	9.6
A few times a week	46,233.6	19.4
Every day	61,431.0	25.8

Note. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

How Often Did You Feel You Were at the End of Your Rope?

About 28% of RNs reported they felt they were at the end of their rope at least a few times per week, with half of this group feeling like that every day. About 9.2% felt they were at the end of their rope once per week. Slightly over a quarter never felt like they were at the end of their rope (Table 51).

TABLE 51

Registered Nurses Who Reported Feeling at the End of Their Rope, 2022

Felt at End of Rope	2022 (*N* = 238,187.0)	
	n	%
Never	66,571.2	28.0
A few times a year	31,951.3	13.4
Once a month or less	21,266.7	8.9
A few times a month	26,454.6	11.1
Once a week	21,834.0	9.2
A few times a week	35,017.1	14.7
Every day	35,092.1	14.7

Note. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Licensed Practical Nurse/Licensed Vocational Nurse Results

Demographics

Gender

Respondents were asked to identify their gender. From 2015 through 2022, the percentage of male LPNs/LVNs nurses increased from 7.5% to 10.2% while the percentage of female nurses decreased from 92.5% to 89.6% (Table 52).

TABLE 52

Gender Distribution of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022

Gender	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LVN Survey Respondents	*N* = 28,891.0		*N* = 34,616.8		*N* = 39,530.0		*N* = 54,380.7	
Male	2,169.7	7.5	2,670.9	7.7	3,195.8	8.1	5,563.2	10.2
Female	26,721.3	92.5	31,945.9	92.3	36,303.1	91.8	48,712.3	89.6
Nonbinary[a]	-	-	-	-	31.1	0.1	105.2	0.2
U.S. LPN/LVN Population								
Male	65,246	7.5	61,064	7.7	75,932	8.1	92,604	10.2
Female	803,559	92.5	730,383	92.3	862,559	91.8	810,861	89.6
Nonbinary[a]	-	-	-	-	739	0.1	1,751	0.2

Note. Frequencies reflect nonresponse weighting adjustments.

[a] "Other" was added as a response option with the 2020 survey and was renamed "nonbinary" in 2022.

Age

The median age for LPNs/LVNs in 2022 was 47 years. In 2015, the largest proportion of LPNs/LVNs were aged 55–59 years (12.9%). In 2017 and 2020, the largest proportion of LPNs/LVNs were aged 65 years or older (13.2% and 18.2%, respectively). In 2022, the largest proportion of LPNs/LVNs were aged 50–54 years (15.0%), but every younger age group increased in 2022 compared with 2020. While older LPNs/LVNs are remaining in the workforce, the profession is making headway in increasing the proportion of younger nurses in the profession (Table 53).

TABLE 53

Age Distribution of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022

Age, y	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LVN Survey Respondents	*N* = 27,172.4		*N* = 34,454.1		*N* = 37,868.7		*N* = 51,883.5	
17–29	2,652.5	9.8	3,072.7	8.9	2,816.1	7.4	4,955.1	9.6
30–34	2,579.5	9.5	2,930.1	8.5	3,163.8	8.4	5,783.9	11.2
35–39	2,689.3	9.9	3,541.2	10.3	3,710.1	9.8	5,485.8	10.6
40–44	3,331.8	12.3	3,539.4	10.3	3,885.0	10.3	6,280.0	12.1
45–49	3,375.1	12.4	4,052.6	11.8	4,253.5	11.2	6,205.3	12.0
50–54	3,076.4	11.3	3,875.0	11.2	4,056.5	10.7	7,787.3	15.0
55–59	3,516.3	12.9	4,428.0	12.9	4,305.6	11.4	5,073.6	9.8
60–64	3,264.9	12.0	4,476.9	13.0	4,770.8	12.6	4,177.8	8.1
≥65	2,686.6	9.9	4,538.3	13.2	6,907.3	18.2	6,134.5	11.8
U.S. LPN/LVN Population								
17–29	79,764	9.8	70,251	8.9	66,910	7.4	82,482	9.6
30–34	77,569	9.5	66,991	8.5	75,172	8.4	96,279	11.2
35–39	80,873	9.9	80,962	10.3	88,152	9.8	91,316	10.6
40–44	100,194	12.3	80,921	10.3	92,307	10.3	104,537	12.1
45–49	101,495	12.4	92,654	11.8	101,063	11.2	103,293	12.0
50–54	92,513	11.3	88,595	11.2	96,382	10.7	129,626	15.0
55–59	105,742	12.9	101,239	12.9	102,301	11.4	84,455	9.8

Age Distribution of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022 *(continued)*

Age, y	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
60–64	98,182	12.0	102,356	13.0	113,354	12.6	69,544	8.1
≥65	80,791	9.9	103,759	13.2	164,117	18.2	102,115	11.8

FIGURE 21

Age Distribution of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs)
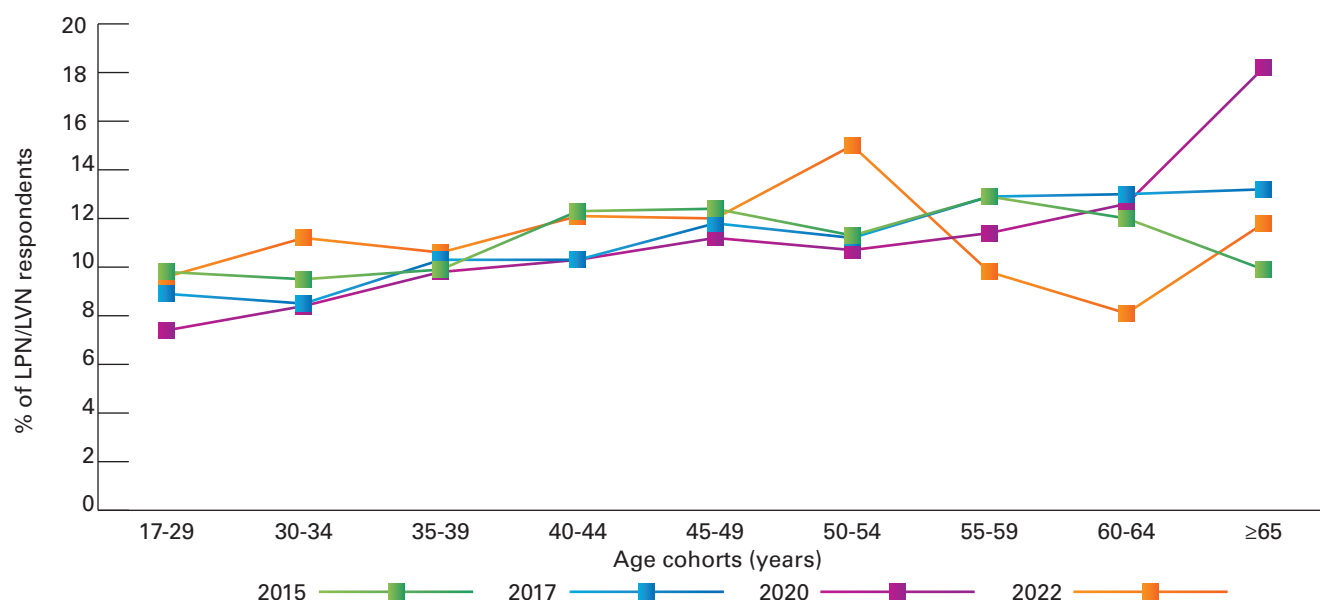
Age by Gender

The distribution of female LPNs/LVNs was relatively flat across all age cohorts. Interestingly, the largest cohort of female nurses was the oldest age group (≥65 years) at 12.1%. This was markedly different than the male and nonbinary genders where the age distribution is skewed towards younger age groups (Table 53).

TABLE 53

Age Distribution of Licensed Practical Nurses/Licensed Vocational Nurses by Gender, 2022

Age, y	Male (*n* = 5,292.8)		Female (*n* = 46,312.8)		Nonbinary (*n* = 96.7)		Total (*N* = 51,702.3)	
	n	%	*n*	%	*n*	%	*n*	%
17–29	665.6	12.6	4,233.1	9.1	41.0	42.4	4,939.7	9.6%
30–34	663.4	12.5	5,086.7	11.0	14.3	14.8	5,764.3	11.1%
35–39	437.5	8.3	5,025.3	10.9	8.8	9.1	5,471.7	10.6%
40–44	704.9	13.3	5,555.5	12.0	5.9	6.1	6,266.3	12.1%
45–49	638.0	12.1	5,535.9	12.0	2.4	2.4	6,176.3	11.9%
50–54	803.1	15.2	6,943.2	15.0	16.1	16.7	7,762.4	15.0%
55–59	512.1	9.7	4,537.5	9.8	1.0	1.0	5,050.5	9.8%
60–64	374.9	7.1	3,785.5	8.2	2.2	2.3	4,162.6	8.1%
≥65	493.3	9.3	5,610.0	12.1	5.1	5.3	6,108.4	11.8%

Race/Ethnicity

From 2017 to 2022, the proportion of White/Caucasian LPNs/LVNs decreased from 71.4% to 65.9%, while the proportion of Asian LPNs/LVNs increased from 2.6% to 6.3%. The proportion of LPNs/LVNs in the other racial categories remained largely unchanged between 2017 and 2022 (Table 54).

TABLE 54

Race/Ethnicity of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2017–2022

Race	2017		2020		2022	
	n	%	*n*	%	*n*	%
LPN/LVN Survey Respondents	N = 34,467.5		N = 39,397.4		N = 53,913.0	
American Indian or Alaska Native	219.8	0.6	316.6	0.8	673.1	1.3
Asian	897.4	2.6	1,980.6	5.0	3,415.1	6.3
Black/African American	6,372.4	18.5	6,790.7	17.2	9,482.5	17.6
Native Hawaiian or Other Pacific Islander	62.4	0.2	225.2	0.6	309.3	0.6
White/Caucasian	24,604.0	71.4	27,385.1	69.5	35,527.2	65.9
Other	1,568.5	4.6	1,743.9	4.4	2,915.6	5.4
More than one race category selected	743.1	2.2	921.6	2.3	1,590.2	3.0
U.S. LPN/LVN Population						
American Indian or Alaska Native	5,024	0.6	7,522	0.8	11,205	1.3
Asian	20,517	2.6	47,059	5.0	56,848	6.3
Black/African American	145,692	18.5	161,346	17.2	157,844	17.6
Native Hawaiian or Other Pacific Islander	1,427	0.2	5,351	0.6	5,149	0.6
White/Caucasian	562,524	71.4	650,668	69.5	591,382	65.9
Other	35,860	4.6	41,435	4.4	48,533	5.4
More than one race category selected	16,990	2.2	21,897	2.3	26,471	3.0

Note. Respondents were asked to select all that apply. Responses were subsequently recoded to ensure that the race categories were mutually exclusive. Respondents selecting multiple race categories were reclassified into the "more than one race category selected" category.

Hispanic/Latino Ethnicity

In 2022, 11.5% of LPNs/LVNs identified as being of Hispanic/Latino origin. Between 2015 and 2022, the percentage of RNs identifying as Hispanic/Latino increased from 6.4% to 11.5% (Table 55 and Figure 22).

TABLE 55

Hispanic or Latino Ethnicity of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022

Ethnicity	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LVN Survey Respondents	N = 30,620.8		N = 34,449.3		N = 39,335.6		N = 53,914.9	
Hispanic or Latino origin	1,964.6	6.4	2,558.6	7.4	3,912.8	10.0	6,219.1	11.5
Not of Hispanic or Latino origin	28,656.3	93.6	31,890.6	92.6	35,422.9	90.0	47,695.8	88.5
U.S. LPN/LVN Population								
Hispanic or Latino origin	59,079	6.4	58,498	7.4	92,968	10.0	103,522	11.5
Not of Hispanic or Latino origin	861,746	93.6	729,119	92.6	841,645	90.0	793,940	88.5

Note. In the 2013 and 2015 surveys, the Hispanic/Latino origin and race categories were combined into one question. The categories were separated beginning with the 2017 survey.

FIGURE 22

Hispanic or Latino Origin for Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs)
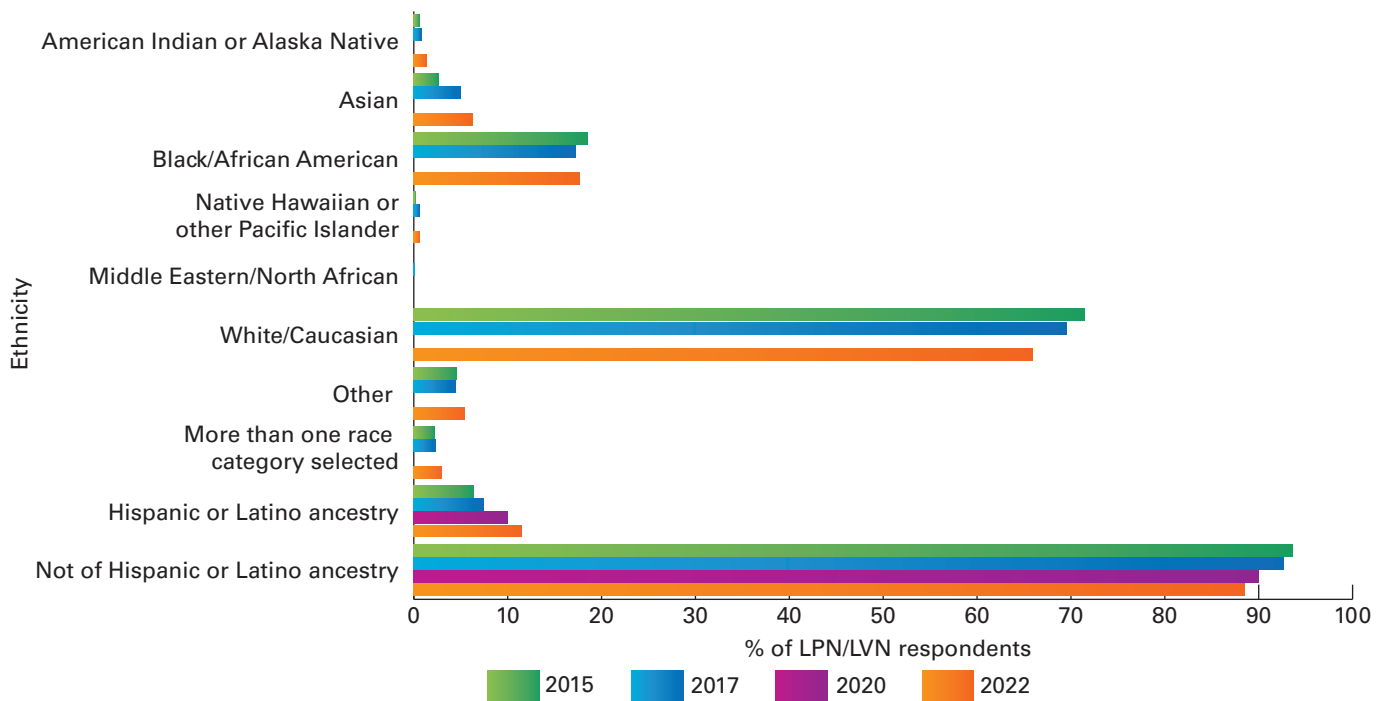
Race/Ethnicity by Gender

Male LPNs/LVNs tend to be more racially diverse than their female colleagues. Only 47.5% of male LPNs/LVNs identified as being White/Caucasian compared to 68.1% for female LPNs/LVNs. Also, 20.9% of male LPNs/LVNs identified as Black/African American and 14.9% identified as Asian, while female LPNs/LVNs were 17.2% and 5.4%, respectively (Table 56).

TABLE 56

Race of Licensed Practical Nurses/Licensed Vocational Nurses by Gender, 2022

Race	Male (n = 5,526.9)		Female (n = 48,091.0)		Nonbinary (n = 105.2)		Total (N = 53,723.1)	
	n	%	*n*	%	*n*	%	*n*	%
American Indian or Alaska Native	147.7	2.7	509.8	1.1	9.1	8.7	666.7	1.2
Asian	822.3	14.9	2,572.1	5.4	4.1	3.9	3,398.5	6.3
Black/African	1,154.8	20.9	8,275.3	17.2	4.9	4.7	9,435.0	17.6
Native Hawaiian or other Pacific Islander	89.1	1.6	212.9	0.4	0.0	0.0	302.0	0.6
White/Caucasian	2,626.3	47.5	32,739.1	68.1	69.9	66.5	35,435.3	66.0
Other	389.2	7.0	2,498.6	5.2	12.5	11.9	2,900.3	5.4
More than one race category selected	297.5	5.4	1,283.2	2.7	4.7	4.4	1,585.4	3.0

Note. Weighted sample values. Respondents were asked to select all that apply. The responses were subsequently recoded to ensure that the race categories were mutually exclusive. Respondents selecting multiple race categories were reclassified into the "more than one race category selected" category.

Like the results seen for RNs, younger LPNs/LVNs tend to be more racially diverse than older nurses. However, the youngest cohort (age 17–29 years) are less diverse than those in slightly older cohorts. LPNs/LVNs between the ages of 30 and 54 years were the most diverse of all age groups (Table 57).

TABLE 57

Race of Licensed Practical Nurses/Licensed Vocational Nurses by Age, 2022

Age, y	*n* (%)							*n*
	American Indian or Alaska Native	Asian	Black/African American	Native Hawaiian or other Pacific Islander	White/ Caucasian	Other	More than one race	
17–29	135.6 (2.8)	218.4 (4.5)	538.4 (11.0)	48.0 (1.0)	3,509.7 (71.8)	263.8 (5.4)	176.5 (3.6)	4,890.4
30–34	72.0 (1.3)	526.2 (9.2)	789.7 (13.8)	49.5 (0.9)	3,596.3 (62.9)	431.3 (7.5)	254.2 (4.5)	5,719.2
35–39	75.2 (1.4)	448.2 (8.3)	1,090.8 (20.1)	46.6 (0.9)	3,221.6 (59.4)	360.3 (6.6)	185.5 (3.4)	5,428.2
40–44	67.9 (1.1)	458.2 (7.4)	1,335.7 (21.5)	59.8 (1.0)	3,700.1 (59.6)	322.3 (5.2)	259.5 (4.2)	6,203.6
45–49	54.1 (0.9)	393.8 (6.4)	1,364.2 (22.1)	46.0 (0.8)	3,781.2 (61.4)	305.0 (5.0)	217.6 (3.5)	6,162.0
50–54	110.9 (1.4)	576.2 (7.5)	1,574.8 (20.4)	25.7 (0.3)	4,855.5 (62.9)	408.6 (5.3)	169.1 (2.2)	7,720.8
55–59	56.0 (1.1)	246.3 (4.9)	750.0 (14.9)	14.9 (0.3)	3,550.1 (70.7)	289.9 (5.8)	113.8 (2.3)	5,021.0
60–64	29.4 (0.7)	163.1 (3.9)	591.6 (14.3)	9.4 (0.2)	3,120.0 (75.5)	154.0 (3.7)	66.8 (1.6)	4,134.4
≥ 65	47.0 (0.8)	156.6 (2.6)	876.9 (14.4)	6.8 (0.1)	4,719.0 (77.7)	178.4 (2.9)	86.0 (1.4)	6,070.6
Total	648.1 (1.3)	3,187.1 (6.2)	8,912.1 (17.4)	306.7 (0.6)	34,053.5 (66.3)	2,713.6 (5.3)	1,529.2 (3.0)	51,350.2

Note. Weighted sample values. Respondents were asked to select all that apply. The responses were subsequently recoded to ensure that the race categories were mutually exclusive. Respondents selecting multiple race categories were reclassified into the "more than one race category selected" category.

Education

Type of Nursing Degree or Credentials for First U.S. Nursing License

In 2022, 82.0% of LPNs/LVNs held a vocational/practical certificate when they were first licensed in the United States. This rate is mostly unchanged from 2015 to 2022. A little more than 10% held a nursing diploma when first licensed, while 8.0% held either a baccalaureate or associate degree (Table 58 and Figure 23).
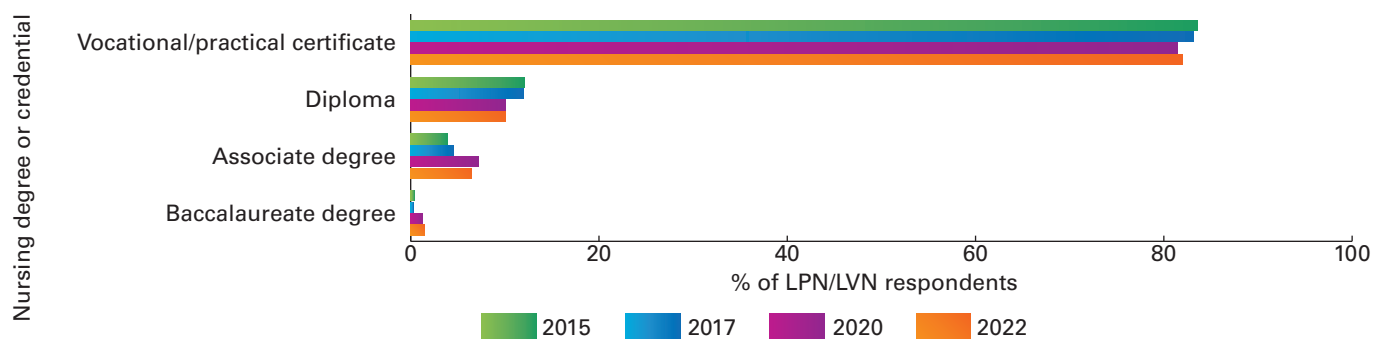
TABLE 58

Type of Nursing Degree or Credential of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) for First U.S. Nursing License, 2015–2022

Nursing Degree or Credential	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LVN Survey Respondents	N = 30,223.3		N = 34,108.8		N = 38,868.2		N = 52,916.2	
Vocational/practical certificate	25,257.4	83.6	28,395.0	83.2	31,665.6	81.5	43,388.8	82.0
Diploma	3,661.3	12.1	4,098.6	12.0	3,914.4	10.1	5,317.0	10.1
Associate degree	1,168.8	3.9	1,521.3	4.5	2,793.3	7.2	3,423.7	6.5
Baccalaureate degree	135.8	0.4	93.9	0.3	495.0	1.3	786.7	1.5
U.S. LPN/LVN Population								
Vocational/practical certificate	759,537	83.6	649,197	83.2	752,371	81.5	722,246	0.0
Diploma	110,101	12.1	93,707	12.0	93,006	10.1	88,507	0.0
Associate degree	35,146	3.9	34,782	4.5	66,368	7.2	56,990	0.0
Baccalaureate degree	4,085	0.4	2,146	0.3	11,760	1.3	13,095	0.0

FIGURE 23

Type of Nursing Degree or Credential of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) for First U.S. Nursing License

Type of Nursing Degree or Credential for First U.S. Nursing License by Age

Across all age groups, the vocational/practical certificate was the most commonly held credential when respondents obtained their first U.S. LPN/LVN license. The second most-held credential was the nursing diploma, and it was more common among LPNs/LVNs between the ages of 40 and 54 years (Table 59).

TABLE 59

Type of Nursing Degree or Credential of Licensed Practical Nurses/Licensed Vocational Nurses for First U.S. Nursing License by Age, 2022

Age, y	Nursing degree or credential, *n* (%)					Total (*N* = 50,408.3)
	Vocational/ practical certificate (*n* = 41,243.7)	Diploma (*n* = 5,106.1)	Associate degree (*n* = 3,283.4)	Baccalaureate degree (*n* = 747.5)	Master's degree (*n* = 27.6)	
17–29	4,108.0 (10.0)	363.2 (7.1)	368.3 (11.2)	40.8 (5.5)	0.0 (0.0)	4,880.3 (9.7)
30–34	4,608.7 (11.2)	454.1 (8.9)	384.9 (11.7)	200.6 (26.8)	0.1 (0.4)	5,648.4 (11.2)
35–39	4,428.8 (10.7)	483.1 (9.5)	379.8 (11.6)	90.3 (12.1)	3.9 (14.1)	5,385.9 (10.7)
40–44	4,792.8 (11.6)	730.4 (14.3)	504.6 (15.4)	87.8 (11.7)	0.2 (0.6)	6,115.7 (12.1)
45–49	4,837.8 (11.7)	737.6 (14.5)	430.0 (13.1)	64.4 (8.6)	0.0 (0.0)	6,069.8 (12.0)
50–54	5,977.9 (14.5)	877.5 (17.2)	460.1 (14.0)	161.0 (21.5)	10.9 (39.7)	7,487.5 (14.9)
55–59	3,965.5 (9.6)	531.8 (10.4)	317.1 (9.7)	51.8 (6.9)	0.2 (0.6)	4,866.4 (9.7)
60–64	3,388.0 (8.2)	412.5 (8.1)	218.3 (6.7)	28.3 (3.8)	4.1 (14.9)	4,051.3 (8.0)
≥65	5,136.3 (12.5)	515.9 (10.1)	220.1 (6.7)	22.5 (3.0)	8.2 (29.8)	5,903.1 (11.7)

Note. Weighted sample values.

Highest Level of Nursing Education

In 2022, 71.8% of LPNs/LVNs' highest level of nursing education was a vocational/practical certificate. Additionally, 12.2% of LPNs/LVNs held a diploma, 13.1% were awarded an associate degree, and 2.9% held a baccalaureate degree (Table 60 and Figure 24).

TABLE 60

Highest Level of Nursing Education Among Licensed Practical Nurses/Licensed Vocational Nurses, 2015–2022

|	2015 (*N* = 25,626.5)		2017 (*N* = 34,208.6)		2020 (*N* = 38,746.1)		2022 (*N* = 49.455.0)	
Nursing Degree or Credential	*n*	%	*n*	%	*n*	%	*n*	%
Vocational/practical certificate	19,481.3	76.0	26,615.3	77.8	27,899.9	72.0	35,510.0	71.8
Diploma	3,882.5	15.2	4,900.8	14.3	4,732.5	12.2	6,051.6	12.2
Associate degree	1,888.6	7.4	2,509.6	7.3	4,910.1	12.7	6,473.3	13.1

(continued)

Highest Level of Nursing Education Among Licensed Practical Nurses/Licensed Vocational Nurses, 2015–2022 *(continued)*

Nursing Degree or Credential	2015 (*N* = 25,626.5)		2017 (*N* = 34,208.6)		2020 (*N* = 38,746.1)		2022 (*N* = 49.455.0)	
	n	%	*n*	%	*n*	%	*n*	%
Baccalaureate degree	308.5	1.2	182.8	0.5	1,203.5	3.1	1,420.1	2.9

Note. In the 2015 surveys, a single question "What is your highest level of education?" was asked with the set of possible responses including both nursing and non-nursing degrees. The degree types were separated beginning with the 2017 survey. A very small number (<0.1%) of Licensed Practical Nurses/Licensed Vocational Nurses earned a master's degree.

FIGURE 24

Highest Level of Nursing Education Among Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs
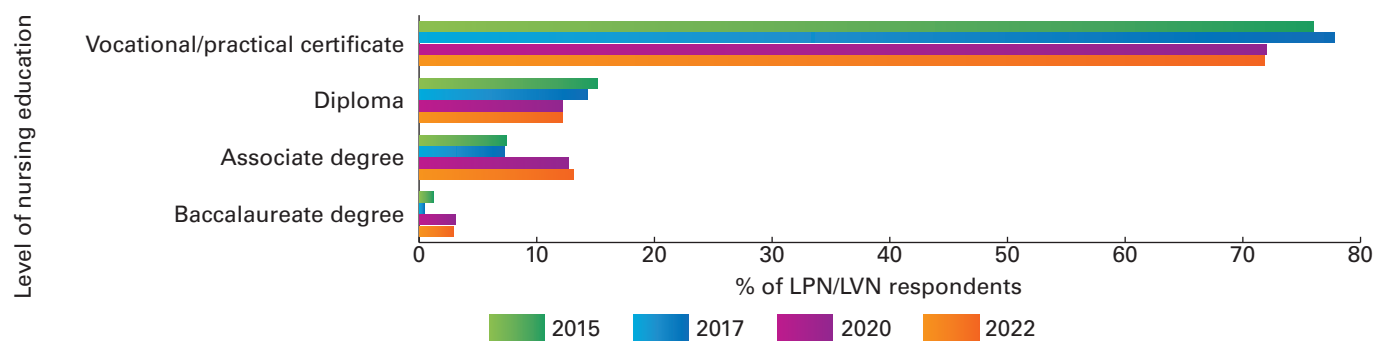
Highest Level of Nursing Education by Race

The vocational/practical certificate was the most common highest level of education across all racial groups. For LPNs/LVNs identifying as Asian, 59.0% held a vocational/practical certification, 7.0% had an associate degree, and 24.0% held a baccalaureate. Overall, only 2.9% of the LPN/LVN workforce held a baccalaureate degree and 13.1% held an associate degree (Table 61).

TABLE 61

Highest Level of Nursing Education of Licensed Practical Nurses/Licensed Vocational Nurses by Race, 2020

Race	*n* (%)				*n*
	Vocational/Certificate	Diploma	Associate	Baccalaureate	
American Indian or Alaska Native	440.6 (71.2)	56.1 (9.1)	77.9 (12.6)	44.6 (7.2)	619.2
Asian	1,886.8 (59.0)	224.5 (7.0)	319.6 (10.0)	766.6 (24.0)	3,198.2
Black/African American	5,438.6 (64.6)	1,576.9 (18.7)	1,236.8 (14.7)	169.5 (2.0)	8,421.8
Native Hawaiian or Other Pacific Islander	246.5 (83.9)	8.9 (3.0)	29.5 (10.1)	8.7 (3.0)	293.7
White/Caucasian	24,335.6 (75.7)	3,600.8 (11.2)	3,946.6 (12.3)	252.1 (0.8)	32,136.5
Other	1,819.2 (66.6)	308.5 (11.3)	536.0 (19.6)	66.5 (2.4)	2,730.2
More than one race category selected	871.3 (61.0)	215.2 (15.1)	246.0 (17.2)	97.0 (6.8)	1,429.5
Total	35,038.5 (71.8)	5,991.0 (12.3)	6,392.3 (13.1)	1,405.0 (2.9)	48,829.2

Note. Weighted sample values. In the 2015 surveys, a single question "What is your highest level of education?" was asked with the set of possible responses including both nursing and non-nursing degrees. The degree types were separated beginning with the 2017 survey. For the race question, respondents were asked to select all that apply. The responses were subsequently recoded to ensure that the race categories were mutually exclusive.

Respondents selecting multiple race categories were reclassified into the "more than one race category selected" category.

Highest Level of Non-nursing Education

When asked about their highest level of non-nursing education, 69.2% of LPNs/LVNs reported an associate degree non-nursing education. While 25.0% held a baccalaureate degree, 4.8% held a master's degree, and 1.1% obtained a doctorate (Table 62).

TABLE 62

Highest Level of Non-nursing Education of Licensed Practical Nurses/Licensed Vocational Nurses, 2017–2022

Degree	2017 (*N* = 9,832.6)		2020 (*N* = 12,497.8)		2022 (*N* = 18,469.8)	
	n	%	*n*	%	*n*	%
Associate degree	6,762.0	68.8	8,719.7	69.8	12,786.6	69.2
Baccalaureate degree	2,460.1	25.0	3,008.1	24.1	4,612.7	25.0
Master's degree	515.6	5.2	674.0	5.4	877.0	4.8
Doctoral degree	95.0	1.0	95.9	0.8	193.5	1.1

Note. In the 2015 surveys, a single question "What is your highest level of education?" was asked with the set of possible responses including both nursing and non-nursing degrees. The degree types were separated beginning with the 2017 survey.

Licensure

Number of Years Licensed

In 2022, LPN/LVN respondents reported they were licensed for a median of 13 years, as compared to 17 years in the 2020 survey. More than four of every 10 respondents (42.1%) were licensed for 10 years or less, a 5.2% increase from the 36.9% reporting the same in 2020. An additional 27.3% were licensed between 11 and 20 years, which also increased from 23.4% in 2020. Nearly 70% reported they have been licensed for 20 years or less, the highest percentage since 2015 (Table 63).

TABLE 63

Number of Years Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) Have Been Licensed, 2015–2022

Years Licensed	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LVN Survey Respondents	*N* = 26,138.0		*N* = 33,652.6		*N* = 36,311.8		*N* = 50,033.44	
0–10	11,417.8	43.7	13,694.1	40.7	13,401.4	36.9	21,074.2	42.1
11–20	5,258.9	20.1	6,674.0	19.8	8,502.2	23.4	13,658.1	27.3
21–30	4,018.0	15.4	5,483.9	16.3	6,028.3	16.6	7,578.4	15.2
31–40	3,552.0	13.6	4,531.9	13.5	4,213.2	11.6	4,229.0	8.5
≥41	1,891.4	7.2	3,268.6	9.7	4,166.7	11.5	3,493.8	7.0
U.S. LPN/LVN Population								
0–10	343,353	43.7	313,090	40.7	318,416	36.9	350,798	42.1
11–20	158,145	20.1	152,589	19.8	202,012	23.4	227,352	27.3
21–30	120,828	15.4	125,379	16.3	143,232	16.6	126,149	15.2
31–40	106,815	13.6	103,614	13.5	100,105	11.6	70,395	8.5
≥41	56,877	7.2	74,730	9.7	99,000	11.5	58,157	7.0

FIGURE 25

Number of Years Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) Have Been Licensed
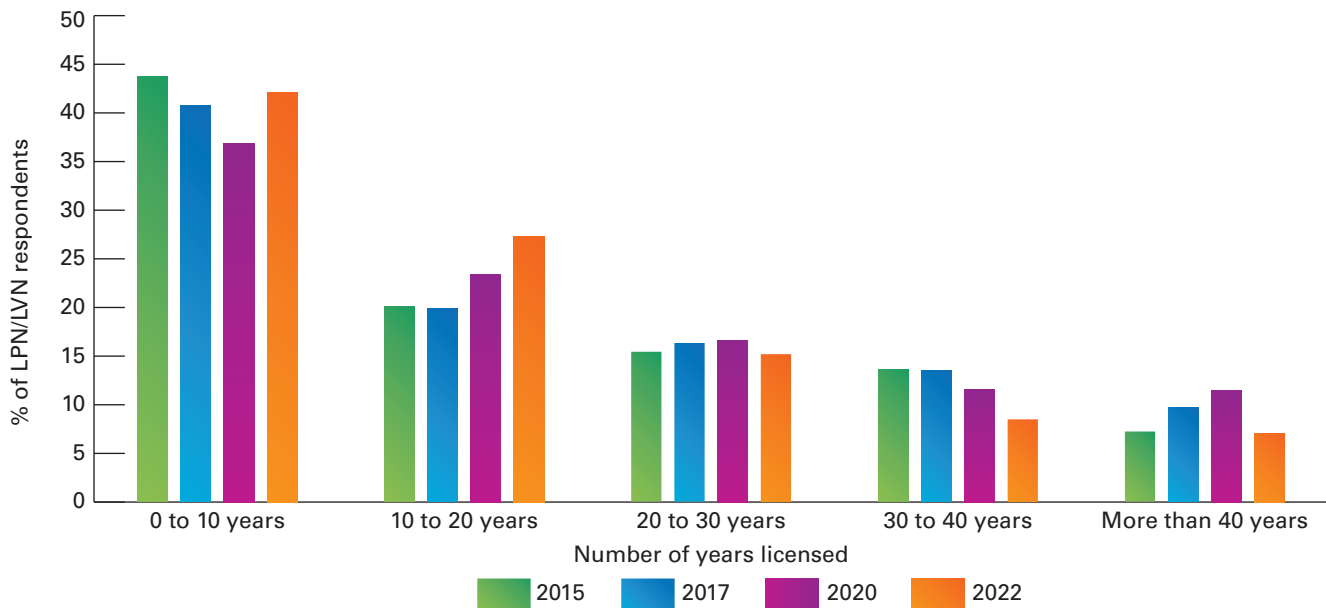
Initially Licensed in the United States

Almost 99% of LPN/LVN respondents were initially licensed in the United States, the same proportion as in 2020. Another 0.7% were initially licensed in the Philippines, 0.1% in Canada, and 0.1% in India. These results are nearly identical to the results in 2020 (Table 64).

TABLE 64

Country in Which Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) Were Initially Licensed, 2020–2022

Country	2020		2022	
	n	%	*n*	%
LPN/LVN Survey Respondents	*N* = 39,472.5		*N* = 54,920.8	
United States	38,959.1	98.7	54,218.6	98.7
Canada	48.2	0.1	55.6	0.1
Philippines	237.9	0.6	397.6	0.7
India	28.9	0.1	29.6	0.1
Other	198.4	0.5	219.5	0.4
U.S. LPN/LVN Population				
United States	925,665	98.7	902,518	98.7
Canada	1,145	0.1	925	0.1
Philippines	5,652	0.6	6,618	0.7
India	687	0.1	492	0.1
Other	4,714	0.5	3,654	0.4

Multistate License

In 2022, 28.7% of LPN/LVNs reported having a multistate license. This represents a 7.5% increase in the possession of a multistate license by LPN/LVNs since 2020 (Table 65).

TABLE 65

Licensed Practical Nurses/Licensed Vocational Nurses Holding a Multistate License, 2020–2022

Multistate license	2020 (*N* = 32,235.9)		2022 (*N* = 42,649.7)	
	n	%	*n*	%
Yes	6,847.5	21.2	12,223.9	28.7
No	25,388.3	78.8	30,425.8	71.3

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Use of Multistate License

In 2022, a new question was added to the survey to inquire about the use of the multistate license among LPNs/LVNs. About three quarters of respondents (76.6%) reported not using their multistate license. For LPNs/LVNs who have a multistate license, 4.4% used it for telehealth, 2.4% used it for disaster support, 1.0% for distance education, and 17.6% used their multistate license for another purpose (Table 66). Additional uses were for travel nursing and multistate practice.

TABLE 66

How Multistate License is Used by Licensed Practical Nurses/Licensed Vocational Nurses, 2022

Use of Multistate License	2022 (*N* = 12,135.0)	
	n	%
Telehealth	531.0	4.4
Distance education	115.2	1.0
Disaster support	293.1	2.4
Have not used	9,296.3	76.6
Other	2,134.6	17.6

Note. Survey participants were asked to answer this question only if they were actively employed in nursing and had a multistate license. Respondents were asked to select all that apply. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Employment

Employment Status

The major portion of responding LPNs/LVNs (87.7%) were actively employed in nursing, with 71.0% employed in nursing full time. This represents a 5.3% increase in the proportion of LPNs/LVNs actively employed and a 5.3% increase in those working full time from 2020 (65.7%). In 2022, the proportion of LPNs/LVNs who were actively employed in nursing was at the highest level since 2015 (Table 67).

TABLE 67

Employment Status of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022

| Employment Status	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LVN Survey Respondents	N = 30,766.0		N = 34,570.2		N = 39,579.6		N = 54,901.4	
Actively employed in nursing full-time	18,823.4	61.2	22,476.5	65.0	26,020.5	65.7	38,963.4	71.0
Actively employed in nursing part-time	3,714.0	12.1	4,151.9	12.0	4,275.9	10.8	5,633.0	10.3
Actively employed in nursing per diem	2,179.4	7.1	2,227.5	6.4	2,326.0	5.9	3,567.4	6.5

(continued)

Employment Status of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022 *(continued)*

Employment Status	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
Actively employed in a field other than nursing full-time	1,504.3	4.9	1,306.6	3.8	1,257.8	3.2	1,769.1	3.2
Actively employed in a field other than nursing part-time	868.5	2.8	756.7	2.2	600.9	1.5	938.7	1.7
Actively employed in a field other than nursing per diem	386.7	1.3	193.6	0.6	230.5	0.6	331.1	0.6
Working in nursing only as a volunteer	366.1	1.2	408.9	1.2	383.6	1.0	455.6	0.8
Unemployed, seeking work as a nurse	1,558.7	5.1	1,162.0	3.4	1,260.9	3.2	1,625.4	3.0
Unemployed, not seeking work as a nurse	1,588.9	5.2	1,595.0	4.6	1,614.7	4.1	2,203.0	4.0
Retired	2,927.1	9.5	2,991.2	8.7	4,457.7	11.3	3,798.7	6.9
U.S. LPN/LVN Population								
Actively employed in nursing full-time	566,053	61.2	513,884	65.0	618,245	65.7	648,581	71.0
Actively employed in nursing part-time	111,686	12.1	94,925	12.0	101,595	10.8	93,766	10.3
Actively employed in nursing per diem	65,540	7.1	50,928	6.4	55,266	5.9	59,383	6.5
Actively employed in a field other than nursing full-time	45,236	4.9	29,874	3.8	29,885	3.2	29,448	3.2
Actively employed in a field other than nursing part-time	26,116	2.8	17,301	2.2	14,277	1.5	15,625	1.7
Actively employed in a field other than nursing per diem	11,629	1.3	4,427	0.6	5,477	0.6	5,511	0.6
Working in nursing only as a volunteer	11,008	1.2	9,350	1.2	9,114	1.0	7,583	0.8
Unemployed, seeking work as a nurse	46,873	5.1	26,566	3.4	29,959	3.2	27,056	3.0
Unemployed, not seeking work as a nurse	47,782	5.2	36,467	4.6	38,365	4.1	36,670	4.0
Retired	88,024	9.5	68,387	8.7	105,915	11.3	63,232	6.9

Note. Respondents were asked to select all that apply.

FIGURE 26

Employment Status of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs)
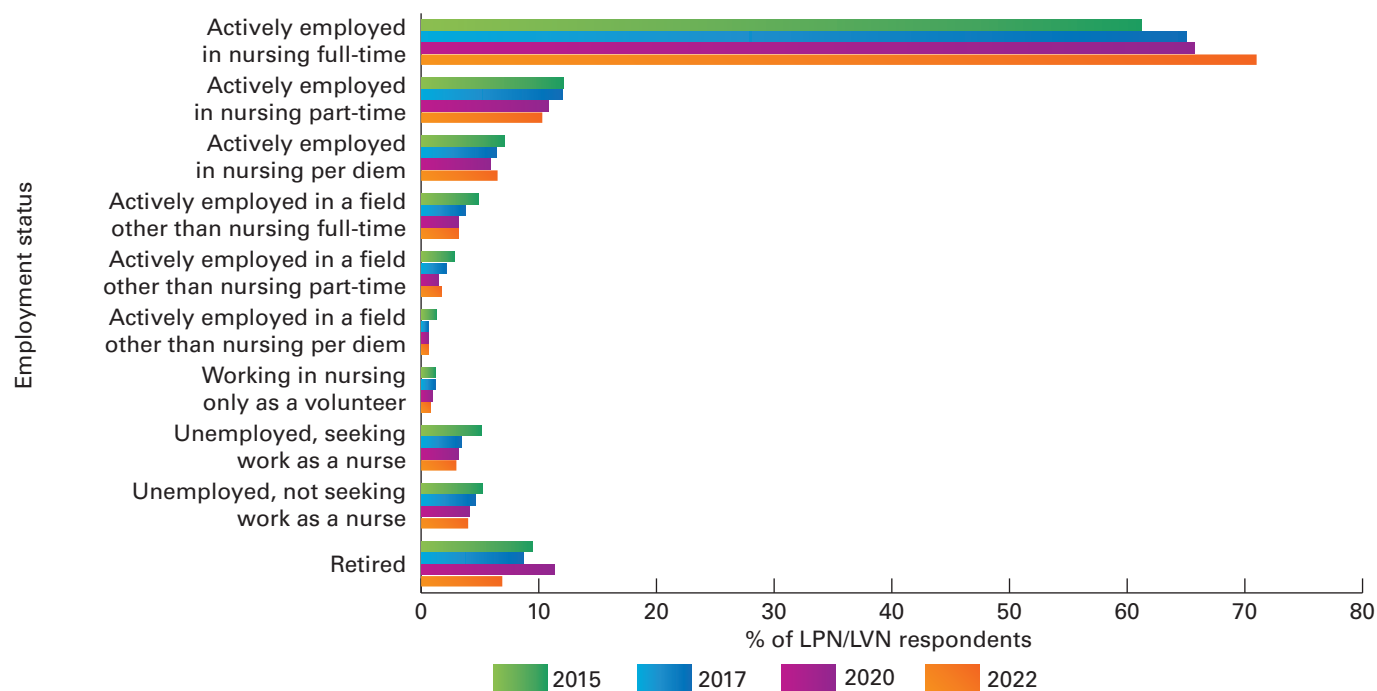
Reasons for Being Unemployed

Respondents were asked to select all the reasons for being unemployed. Taking care of home and family was the most frequently selected reason for being unemployed (41.9%). Other respondents cited the COVID-19 pandemic (20.2%), school (14.2%), and disability (13.0%) as reasons for being unemployed. Almost 11% of LPNs/LVNs stated they were unemployed due to inadequate salary. This represents a marked increase in the reporting of an inadequate salary as the reason for being unemployed (4.8% in 2020 was 4.8% and between 3.0% in 2015 to 4.1% in 2017). The percentage of LPNs/LVNs who indicated unemployment because they experienced difficulty in finding a nursing position was 8.9% in 2022, which was down from 13.8% in 2020 (Table 68 and Figure 27).

TABLE 68

Reasons for Unemployment Among Licensed Practical Nurses/Licensed Vocational Nurses, 2015–2022

Reasons for Unemployment	2015 (N = 2,644.5)		2017 (N = 2,696.8)		2020 (N = 2,781.4)		2022 (N = 3,672.8)	
	n	%	n	%	n	%	n	%
Taking care of home and family	1,033.0	39.1	1,117.4	41.4	1,203.2	43.3	1,537.9	41.9
Disabled	463.3	17.5	570.0	21.1	470.5	16.9	478.7	13.0
Inadequate salary	77.9	3.0	111.5	4.1	133.7	4.8	401.8	10.9
School	393.9	14.9	288.4	10.7	336.5	12.1	521.2	14.2
Difficulty in finding a nursing position	610.4	23.1	419.6	15.6	384.5	13.8	325.6	8.9
COVID-19 pandemic	-	-	-	-	-	-	658.4	20.2
Other	600.1	22.7	713.0	26.4	812.3	29.2	1,309.7	35.7

Note. Survey participants were asked to answer this question only if they were unemployed. Respondents were asked to select all that apply.

FIGURE 27

Reasons for Unemployment Among Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs)
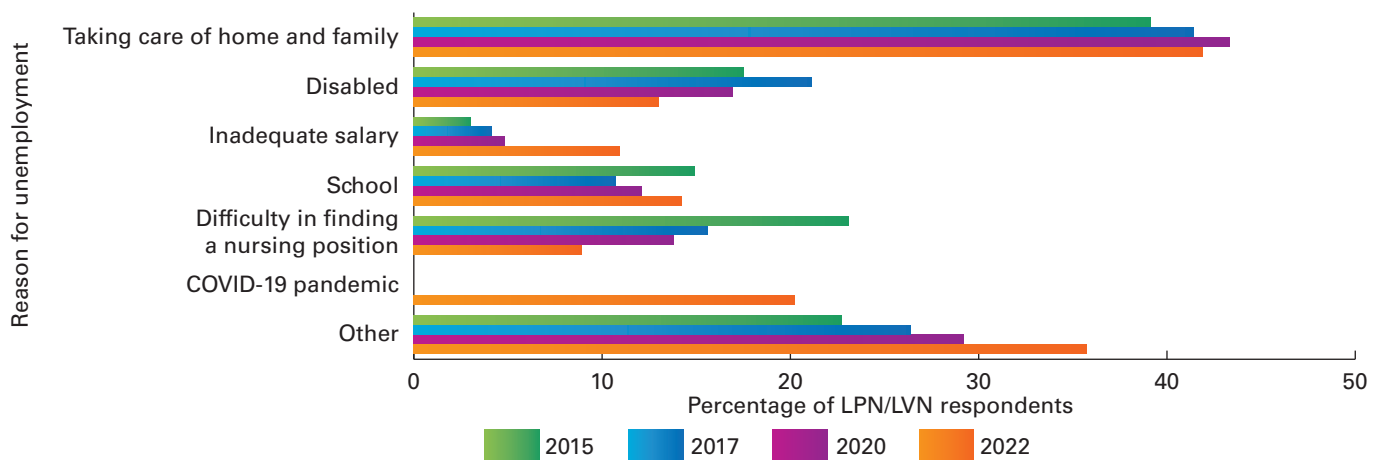
Retirement Plans

When asked about their plans to retire in the next 5 years, a quarter (25.6%) of LPNs/LVNs reported they plan to retire within the next 5 years. This finding represents a 5.4% increase over the proportion who thought they would retire within 5 years (20.2%) in the 2020 survey. This question was new in the 2020 survey (Table 69).

TABLE 69

Retirement Plans of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2020–2022

Plan to Retire Within 5 Years	2020		2022	
	n	%	*n*	%
LPN/LVN Survey Respondents	*N* = 31,693.0		*N* = 43,129.4	
Yes	6,406.8	20.2	11,041.4	25.6
No	25,286.2	79.8	32,087.9	74.4
U.S. LPN/LVN Population				
Yes	152,225	20.2	183,795	25.6
No	600,798	79.8	534,133	74.4

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Number of Positions Currently Held

Respondents were asked to identify the number of positions in which they were currently employed as a nurse. The majority of LPNs/LVNs (79.2%) reported holding just one position as a nurse, which represents a 3.2% decrease compared to 2020. The percentage of LPNs/LVNs who reported working in two positions increased from 15.1% in 2020 to 17.4% in 2022. The percentage of respondents who indicated that they held three or more positions in nursing also increased from 2.5% in 2020 to 3.5% in 2022 (Table 70).

TABLE 70

Number of Positions Currently Held by Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022

Number of Positions	2015		2017		2020		2022	
	n	%	n	%	n	%	*n*	%
LPN/LVN Survey Respondents	*N* = 23,317.3		*N* = 27,576.8		*N* = 31,231.7		*N* = 45,431.9	
1	19,706.5	84.5	22,725.0	82.4	25,738.9	82.4	35,983.4	79.2
2	3,113.0	13.4	4,117.5	14.9	4,705.7	15.1	7,882.7	17.4
≥3	497.8	2.1	734.3	2.7	787.1	2.5	1,565.8	3.5
U.S. LPN/LVN Population								
1	592,611	84.5	519,563	82.4	611,554	82.4	598,977	79.2
2	93,613	13.4	94,139	14.9	111,807	15.1	131,214	17.4
≥3	14,970	2.1	16,788	2.7	18,701	2.5	26,064	3.5

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

Number of Hours Worked During a Typical Week in All Nursing Positions

A little more than half (50.8%) of responding LPNs/LVNs reported working 32 to 40 hours in a typical week in all positions. This is lower than the results from the 2020 survey (58.6%) and the 2017 survey (59.4%). The second most frequently reported category was 41 to 50 hours (20.6%). This represents an increase from 2020 (14.9%) and 2017 (16.0%) (Table 71 and Figure 28).

TABLE 71

Number of Hours Worked by Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) During a Typical Week in All Nursing Positions, 2015–2022

Hours Worked per Week	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LVN Survey Respondents	*N* = 22,450.6		*N* = 27,505.7		*N* = 30,985.7		*N* = 45,095.9	
1–15	913.1	4.1	1,132.6	4.1	1,214.4	3.9	1,527.3	3.4
16–23	1,088.9	4.9	1,298.4	4.7	1,323.6	4.3	1,461.9	3.2
24–31	1,866.4	8.3	2,031.1	7.4	2,238.6	7.2	2,622.0	5.8
32 –40	13,562.8	60.4	16,328.2	59.4	18,164.7	58.6	22,901.9	50.8
41–50	3,410.0	15.2	4,412.7	16.0	4,609.1	14.9	9,292.1	20.6
51–60	928.3	4.1	1,391.1	5.1	1,567.2	5.1	3,933.0	8.7
≥61	681.1	3.0	911.5	3.3	1,868.1	6.0	3,357.6	7.5
U.S. LPN/LVN Population								
1–15	27,459	4.1	25,896	4.1	28,854	3.9	25,424	3.4
16–23	32,744	4.9	29,686	4.7	31,449	4.3	24,335	3.2
24–31	56,126	8.3	46,437	7.4	53,189	7.2	43,646	5.8
32–40	407,859	60.4	373,314	59.4	431,592	58.6	381,223	50.8
41–50	102,546	15.2	100,888	16.0	109,512	14.9	154,676	20.6
51–60	27,916	4.1	31,805	5.1	37,237	5.1	65,468	8.7
≥61	20,482	3.0	20,841	3.3	44,386	6.0	55,890	7.5

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 28

Number of Hours Worked by Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) in All Nursing Positions
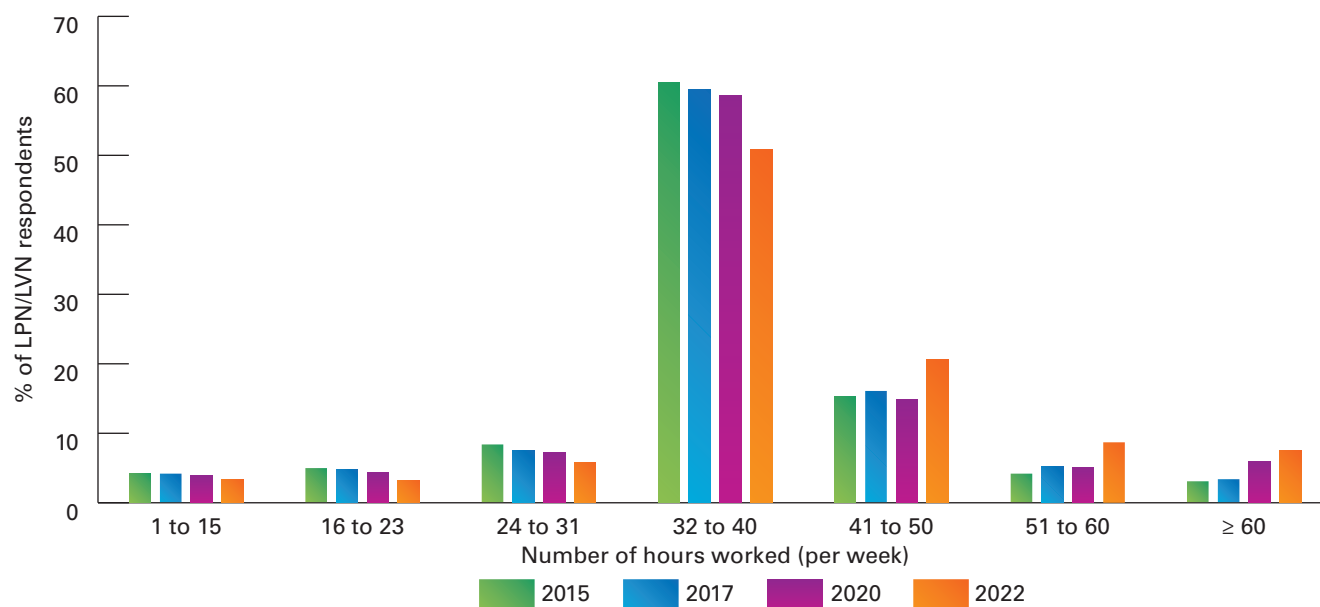
Of those LPNs/LVNs who responded to the question, 30.6% indicated that a nursing home/extended care was their primary nursing practice setting. This represents an increase of 3.1% from 2020. Hospital settings were the second most frequently selected setting at 11.7% of LPNs/LVNs, followed by home health at 11.6% and ambulatory care settings at 8.6% (Table 72 and Figure 29).
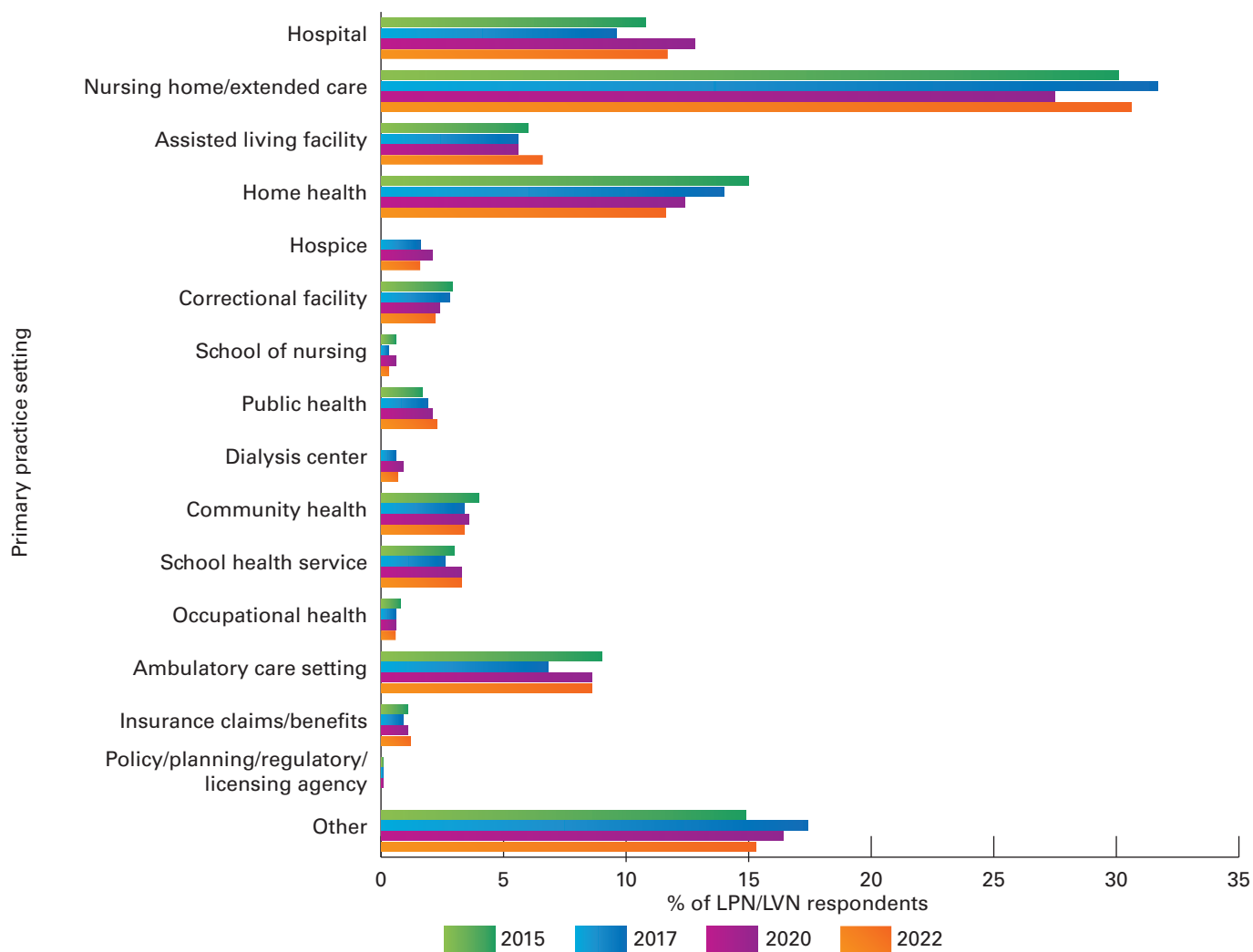
TABLE 72

Primary Nursing Practice Position Setting of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022

Primary Practice Setting	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LPV Survey Respondents	N = 22,989.1		N = 26,459.8		N = 30,055.4		N = 43,306.2	
Hospital	2,478.9	10.8	2,540.3	9.6	3,831.4	12.8	5,084.7	11.7
Nursing home/extended care	6,911.9	30.1	8,385.3	31.7	8,250.3	27.5	13,250.0	30.6
Assisted living facility	1,369.5	6.0	1,484.2	5.6	1,679.5	5.6	2,835.5	6.6
Home health	3,451.0	15.0	3,710.5	14.0	3,733.3	12.4	5,025.9	11.6
Hospice	-	-	426.6	1.6	639.8	2.1	698.7	1.6
Correctional facility	670.2	2.9	738.6	2.8	729.3	2.4	961.6	2.2
School of nursing	142.0	0.6	78.4	0.3	173.7	0.6	141.4	0.3
Public health	399.8	1.7	498.3	1.9	623.1	2.1	972.6	2.3
Dialysis center	-	-	165.8	0.6	266.1	0.9	310.4	0.7
Community health	922.6	4.0	888.1	3.4	1,073.8	3.6	1,487.7	3.4
School health service	683.9	3.0	697.4	2.6	977.2	3.3	1,410.7	3.3
Occupational health	174.9	0.8	166.6	0.6	187.3	0.6	278.4	0.6
Ambulatory care setting	2,061.2	9.0	1,797.3	6.8	2,588.2	8.6	3,702.9	8.6
Insurance claims/benefits	259.7	1.1	241.3	0.9	331.8	1.1	518.5	1.2
Policy/planning/regulatory/ licensing agency	32.3	0.1	24.4	0.1	36.7	0.1	16.0	0.0
Other	3,431.2	14.9	4,616.7	17.4	4,933.9	16.4	6,611.2	15.3
U.S. LPN/LVN Population								
Hospital	74,544	10.8	58,079	9.6	91,034	12.8	84,639	11.7
Nursing home/extended care	207,854	30.1	191,715	31.7	196,026	27.5	220,559	30.6
Assisted living facility	41,183	6.0	33,933	5.6	39,905	5.6	47,200	6.6
Home health	103,779	15.0	84,834	14.0	88,703	12.4	83,661	11.6
Hospice	-	-	9,753	1.6	15,202	2.1	11,631	1.6
Correctional facility	20,154	2.9	16,887	2.8	17,328	2.4	16,007	2.2
School of nursing	4,270	0.6	1,792	0.3	4,127	0.6	2,354	0.3
Public health	12,022	1.7	11,394	1.9	14,805	2.1	16,190	2.3
Dialysis center	-	-	3,790	0.6	6,323	0.9	5,167	0.7
Community health	27,745	4.0	20,305	3.4	25,513	3.6	24,764	3.4
School health service	20,565	3.0	15,945	2.6	23,218	3.3	23,482	3.3
Occupational health	5,260	0.8	3,810	0.6	4,450	0.6	4,634	0.6
Ambulatory care setting	61,984	9.0	41,091	6.8	61,495	8.6	61,637	8.6
Insurance claims/benefits	7,810	1.1	5,517	0.9	7,884	1.1	8,632	1.2
Policy/planning/regulatory/ licensing agency	973	0.1	557	0.1	872	0.1	266	0.0
Other	103,182	14.9	105,553	17.4	117,229	16.4	110,049	15.3

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 29

Most Reported Primary Nursing Practice Position Setting of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs)

Primary Nursing Position Title

About two-thirds (66.5%) of LPNs/LVNs reported staff nurse as their nursing position title. This is down from 2020, when 72.8% identified as a staff nurse (Table 73 and Figure 30).
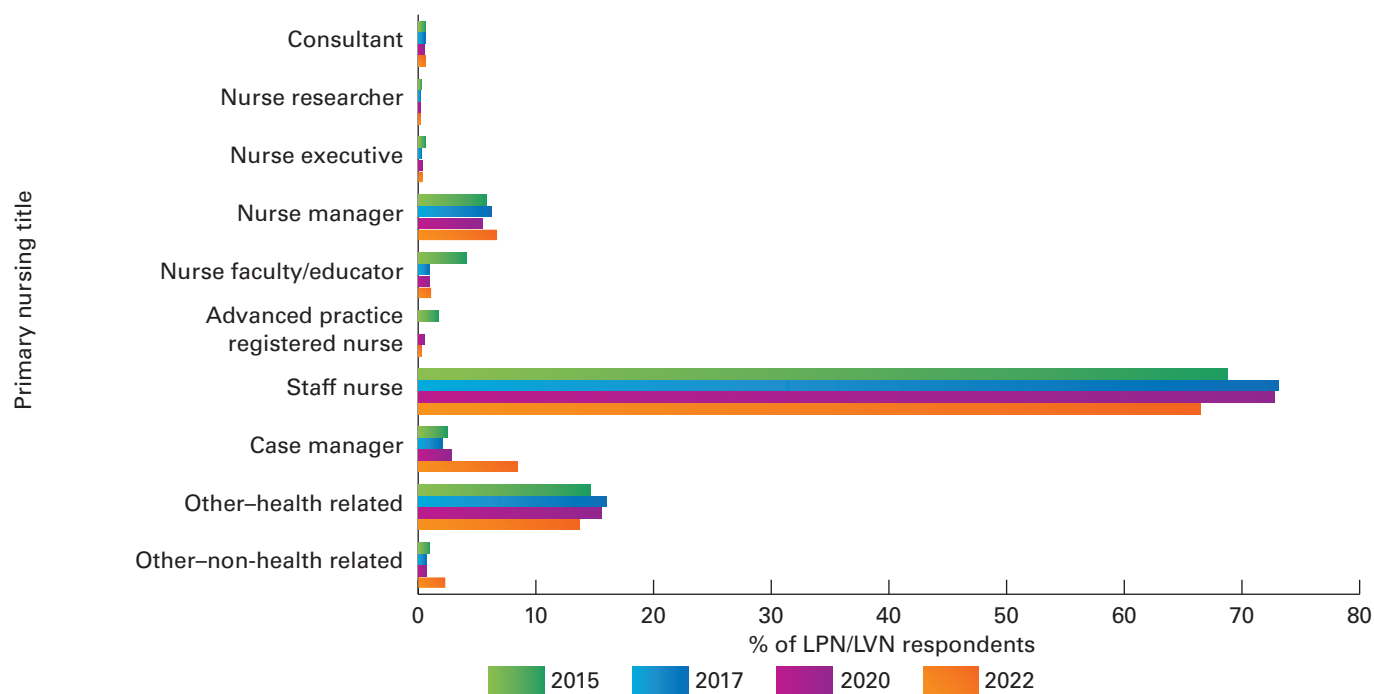
TABLE 73

Primary Nursing Position Title of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022

Primary Title	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LVN Survey Respondents	*N* = 23,567.8		*N* = 26,776.9		*N* = 30,512.5		*N* = 44,122.7	
Consultant	140.6	0.6	152.7	0.6	148.4	0.5	257.4	0.6
Nurse researcher	65.0	0.3	51.2	0.2	66.3	0.2	79.8	0.2
Nurse executive	137.6	0.6	70.9	0.3	120.6	0.4	157.5	0.4
Nurse manager	1,365.4	5.8	1,661.5	6.2	1,680.2	5.5	2,955.9	6.7
Nurse faculty/educator	967.9	4.1	257.5	1.0	310.5	1.0	481.0	1.1

(continued)

Primary Nursing Position Title of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022 *(continued)*

Primary Title	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
APRN	401.7	1.7	9.0	0.0	149.4	0.5	110.6	0.3
Staff nurse	16,214.1	68.8	19,564.6	73.1	22,209.9	72.8	29,324.4	66.5
Case manager	595.3	2.5	561.4	2.1	842.8	2.8	3,708.4	8.4
Other – health related	3,444.2	14.6	4,275.5	16.0	4,768.8	15.6	6,049.8	13.7
Other – not health related	236.0	1.0	172.7	0.7	215.5	0.7	997.9	2.3
U.S. LPN/LVN Population								
Consultant	4,227	0.6	3,490	0.6	3,526	0.5	4,285	0.6
Nurse researcher	1,955	0.3	1,170	0.2	1,575	0.2	1,329	0.2
Nurse executive	4,138	0.6	1,621	0.3	2,865	0.4	2,621	0.4
Nurse manager	41,060	5.8	37,986	6.2	39,921	5.5	49,203	6.7
Nurse faculty/educator	29,107	4.1	5,887	1.0	7,377	1.0	8,007	1.1
APRN	12,079	1.7	206	0.0	3,550	0.5	1,841	0.3
Staff nurse	487,589	68.8	447,308	73.1	527,705	72.8	488,131	66.5
Case manager	17,902	2.5	12,835	2.1	20,025	2.8	61,730	8.4
Other – health related	103,572	14.6	97,751	16.0	113,306	15.6	100,704	13.7
Other – not health related	7,097	1.0	3,949	0.7	5,120	0.7	16,611	2.3

Note. APRN = advanced practice registered nurse. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 30

Most Reported Primary Nursing Position Title of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs)

In the 2022 survey, a new question was added: "Are you currently a travel nurse?" The majority (95.4%) of LPNs/LVNs indicated they were not a travel nurse (Table 74).

TABLE 74

Travel Nurses Among Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2022

Travel Nurse	2022	
	n	%
LPN/LVN Survey Respondents	N = 42,737.4	
Yes	1,989.0	4.7
No	40,748.4	95.4
U.S. LPN/LVN Population		
Yes	33,108	4.7
No	678,294	95.4

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Primary Nursing Position Specialty

In 2022, 31.3% of LPNs/LVNs reported their primary practice specialty was geriatric/gerontology. This increased from 26.6% reported in 2020. The second most common position specialty in 2022 was home health at 8.4%, which was unchanged from 2020. Pediatrics was the third most often reported practice specialty at 7.4% followed by adult health at 7.0% (Table 75 and Figure 31).

TABLE 75

Primary Nursing Position Specialty of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022

Primary Position Specialty	2015		2017		2020		2022	
	n	%	n	%	n	%	n	%
LPN/LVN Survey Respondents	N = 21,932.4		N = 25,214.9		N = 28,417.9		N = 36,204.7	
Acute care/critical care	458.5	2.1	670.0	2.7	1,157.6	4.1	1,227.7	3.4
Adult health	960.6	4.4	1,968.0	7.8	2,354.2	8.3	2,541.7	7.0
Anesthesia	18.0	0.1	17.6	0.1	22.5	0.1	36.9	0.1
Cardiology	-	-	250.4	1.0	312.5	1.1	338.4	0.9
Community	262.6	1.2	216.8	0.9	323.6	1.1	381.0	1.1
Emergency/trauma	157.2	0.7	127.5	0.5	261.6	0.9	531.4	1.5
Family health	-	-	1,712.4	6.8	1,840.3	6.5	1,832.6	5.1
Genetics	182.2	0.8	-	-	-	-	537.7	1.5
Geriatric/gerontology	6,064.1	27.7	7,685.8	30.5	7,545.9	26.6	11,348.1	31.3
Home health	2,109.3	9.6	2,228.2	8.8	2,372.5	8.4	3,055.9	8.4
Informatics	41.4	0.2	-	-	-	-	36.6	0.1
Information technology	-	-	-	-	-	-	28.4	0.1
Maternal-child health/obstetrics	120.5	0.6	225.1	0.9	266.5	0.9	308.1	0.9
Medical-surgical	777.3	3.5	728.6	2.9	1,008.2	3.6	1,412.8	3.9
Neonatal	28.2	0.1	28.8	0.1	40.8	0.1	23.9	0.1
Nephrology	133.7	0.6	201.0	0.8	258.2	0.9	402.2	1.1
Neurology/neurosurgical	90.6	0.4	-	-	-	-	177.1	0.5
Occupational health	154.5	0.7	160.8	0.6	183.4	0.7	242.0	0.7
Oncology	137.1	0.6	152.9	0.6	252.5	0.9	290.0	0.8
Orthopedic	185.5	0.9	-	-	-	-	256.3	0.7
Palliative care/hospice	348.2	1.6	354.7	1.4	490.7	1.7	653.5	1.8
Pediatrics	1,326.0	6.1	1,880.2	7.5	1,819.5	6.4	2,660.3	7.4
Perioperative	93.1	0.4	76.4	0.3	135.3	0.5	189.0	0.5

(continued)

Primary Nursing Position Specialty of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs), 2015–2022 *(continued)*

Primary Position Specialty	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
Primary care	1,695.5	7.7	-	-	-	-	1,725.2	4.8
Public health	173.1	0.8	257.6	1.0	332.4	1.2	456.4	1.3
Psychiatric/mental health/substance abuse	1,084.8	5.0	1,205.0	4.8	1,405.0	4.9	1,064.2	2.9
Radiology	24.2	0.1	-	-	-	-	14.1	0.0
Rehabilitation	847.7	3.9	1,081.5	4.3	990.8	3.5	1,023.1	2.8
School health	612.9	2.8	646.2	2.6	870.1	3.1	660.9	1.8
Urology	102.1	0.5	-	-	-	-	53.8	0.2
Women's health	342.8	1.6	291.0	1.2	426.2	1.5	240.4	0.7
Other - clinical specialties	-	-	2,724.1	10.8	3,264.9	11.5	1,986.9	5.5
Other - nonclinical specialties	-	-	324.1	1.3	482.9	1.7	468.0	1.3
U.S. LPN/LVN Population								
Acute care/critical care	13,787	2.1	15,319	2.7	27,504	4.1	20,437	3.4
Adult health	28,888	4.4	44,995	7.8	55,936	8.3	42,309	7.0
Anesthesia	542	0.1	401	0.1	535	0.1	614	0.1
Cardiology	-	-	5,725	1.0	7,425	1.1	5,633	0.9
Community	7,896	1.2	4,956	0.9	7,689	1.1	6,342	1.1
Emergency/trauma	4,729	0.7	2,915	0.5	6,216	0.9	8,846	1.5
Family health	-	-	39,151	6.8	43,725	6.5	30,505	5.1
Genetics	5,480	0.8	-	-	-	-	8,950	1.5
Geriatric/gerontology	182,359	27.7	175,722	30.5	179,290	26.6	188,899	31.3
Home health	63,430	9.6	50,944	8.8	56,370	8.4	50,869	8.4
Informatics	1,244	0.2	-	-	-	-	610	0.1
Information technology	-	-	-	-	-	-	473	0.1
Maternal-child health/obstetrics	3,623	0.6	5,148	0.9	6,332	0.9	5,128	0.9
Medical-surgical	23,375	3.5	16,659	2.9	23,955	3.6	23,518	3.9
Neonatal	848	0.1	659	0.1	969	0.1	398	0.1
Nephrology	4,022	0.6	4,595	0.8	6,135	0.9	6,696	1.1
Neurology/neurosurgical	2,723	0.4	-	-	-	-	2,948	0.5
Occupational health	4,647	0.7	3,677	0.6	4,358	0.7	4,028	0.7
Oncology	4,124	0.6	3,497	0.6	5,999	0.9	4,828	0.8
Orthopedic	5,577	0.9	-	-	-	-	4,267	0.7
Palliative care/hospice	10,471	1.6	8,109	1.4	11,659	1.7	10,878	1.8
Pediatrics	39,875	6.1	42,988	7.5	43,231	6.4	44,282	7.4
Perioperative	2,798	0.4	1,747	0.3	3,215	0.5	3,147	0.5
Primary care	50,986	7.7	-	-	-	-	28,717	4.8
Public health	5,207	0.8	5,889	1.0	7,898	1.2	7,597	1.3
Psychiatric/mental health/substance abuse	32,622	5.0	27,550	4.8	33,383	4.9	17,714	2.9
Radiology	727	0.1	-	-	-	-	235	0.0
Rehabilitation	25,493	3.9	24,727	4.3	23,541	3.5	17,031	2.8
School health	18,432	2.8	14,774	2.6	20,674	3.1	11,001	1.8
Urology	3,071	0.5	-	-	-	-	896	0.2
Women's health	10,308	1.6	6,653	1.2	10,126	1.5	4,002	0.7
Other - clinical specialties	-	-	62,282	10.8	77,574	11.5	33,074	5.5
Other - nonclinical specialties	-	-	7,411	1.3	11,474	1.7	7,791	1.3

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 31

Most Reported Primary Nursing Position Specialty of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs)
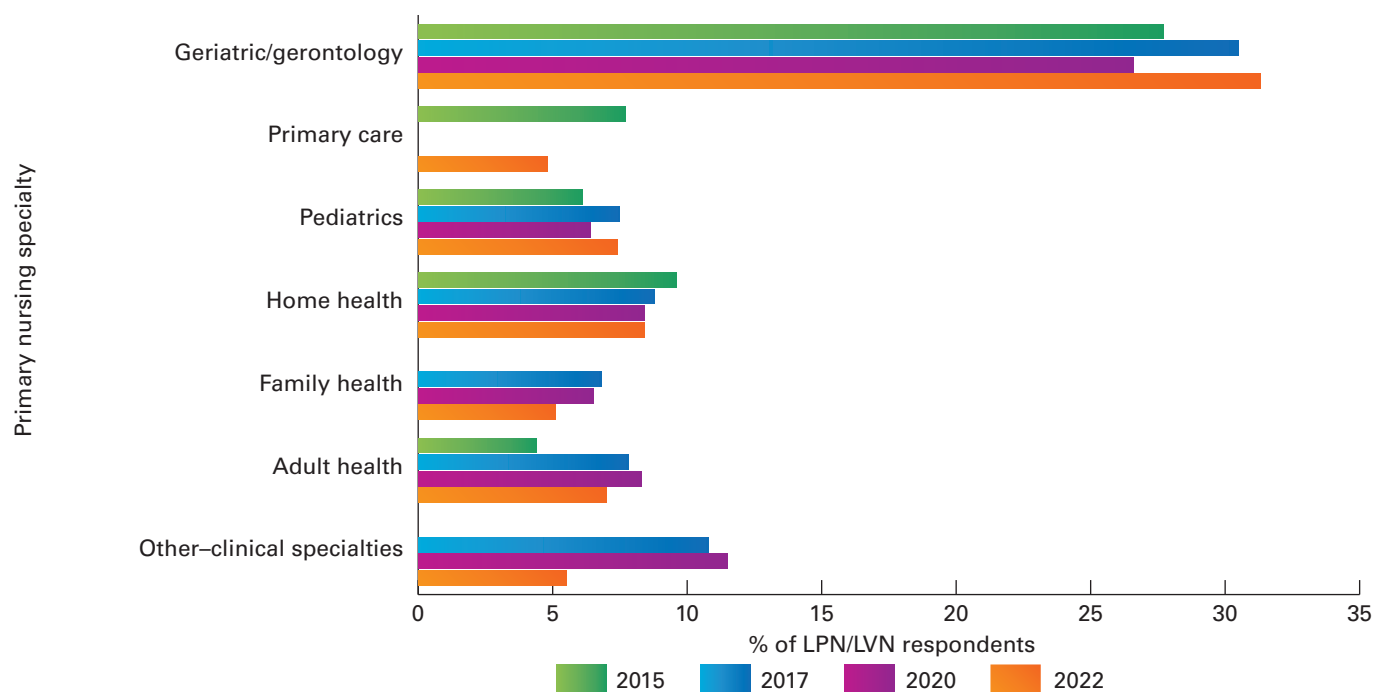
Providing Direct Patient Care—Primary Nursing Position

In 2022, 78.6% of LPNs/LVNs reported providing direct patient care in their primary nursing position. In 2020, the first year this question was asked, 77.8% of LPNs/LVNs said they provided direct patient care in their primary nursing position (Table 76).

TABLE 76

Licensed Practical Nurses/Licensed Vocational Nurses Providing Direct Patient Care Through Primary Nursing Position, 2020–2022

Provide Direct Patient Care	2020 (N = 5,140.8)		2022 (N = 8,035.0)	
	n	%	n	%
Yes	4,393.8	85.5	6,565.3	81.7
No	747.0	14.5	1,469.7	18.3

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Secondary Nursing Position Setting

Of the 20.9% of LPNs/LVNs who have more than one nursing position (Table 70), 29.9% reported practicing in a nursing home/extended care setting, 17.8% in home health, and 11.7% in an assisted living facility (Table 77 and Figure 32).
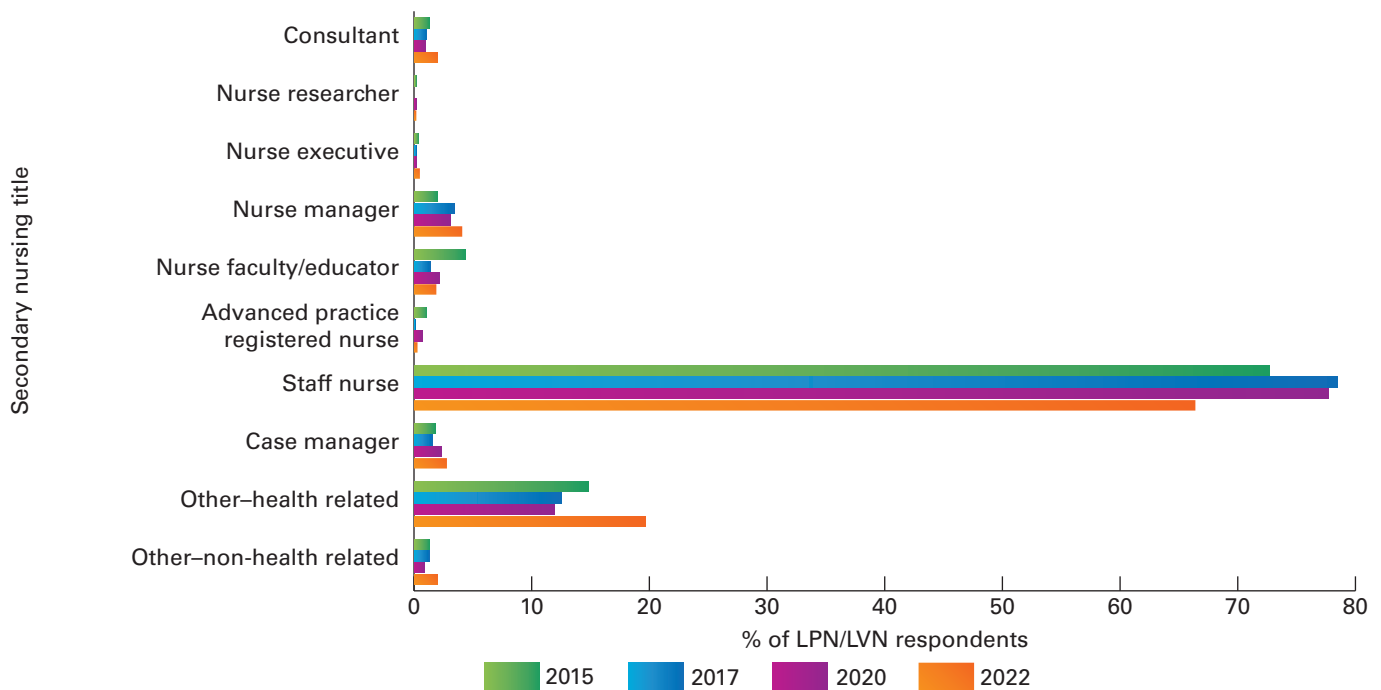
TABLE 77

Secondary Nursing Position Setting Among Licensed Practical Nurses/Licensed Vocational Nurses, 2015–2022

Secondary Nursing Position	2015 (N = 3,018.7)		2017 (N = 4,376.2)		2020 (N = 5,067.9)		2022 (N = 8,416.1)	
	n	%	n	%	n	%	n	%
Hospital	180.4	6.0	261.2	6.0	461.1	9.1	756.7	9.0
Nursing home/extended care	813.3	26.9	1,422.0	32.5	1,608.2	31.7	2,516.4	29.9

(continued)

Secondary Nursing Position Setting Among Licensed Practical Nurses/Licensed Vocational Nurses, 2015–2022 *(continued)*

Secondary Nursing Position	2015 (*N* = 3,018.7)		2017 (*N* = 4,376.2)		2020 (*N* = 5,067.9)		2022 (*N* = 8,416.1)	
	n	%	*n*	%	*n*	%	*n*	%
Assisted living facility	232.5	7.7	332.3	7.6	374.8	7.4	983.4	11.7
Home health	961.3	31.9	1,173.1	26.8	1,189.7	23.5	1,498.7	17.8
Hospice	-	-	115.7	2.6	177.8	3.5	349.7	4.2
Correctional facility	108.7	3.6	136.6	3.1	125.1	2.5	228.6	2.7
School of nursing	32.7	1.1	10.4	0.2	54.8	1.1	97.0	1.2
Public health	30.3	1.0	55.8	1.3	54.1	1.1	179.7	2.1
Dialysis center	-	-	35.0	0.8	30.4	0.6	41.5	0.5
Community health	69.1	2.3	85.2	2.0	108.0	2.1	176.7	2.1
School health service	42.1	1.4	111.9	2.6	109.9	2.2	211.9	2.5
Occupational health	16.9	0.6	31.1	0.7	44.3	0.9	101.9	1.2
Ambulatory care setting	78.4	2.6	121.7	2.8	165.7	3.3	285.7	3.4
Insurance claims/benefits	6.5	0.2	22.8	0.5	25.8	0.5	45.8	0.5
Policy/planning/regulatory/licensing agency	15.9	0.5	16.6	0.4	6.2	0.1	36.5	0.4
Other	430.5	14.3	444.8	10.2	532.0	10.5	905.9	10.8

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 32

Most Reported Secondary Nursing Practice Position Setting Among Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs)
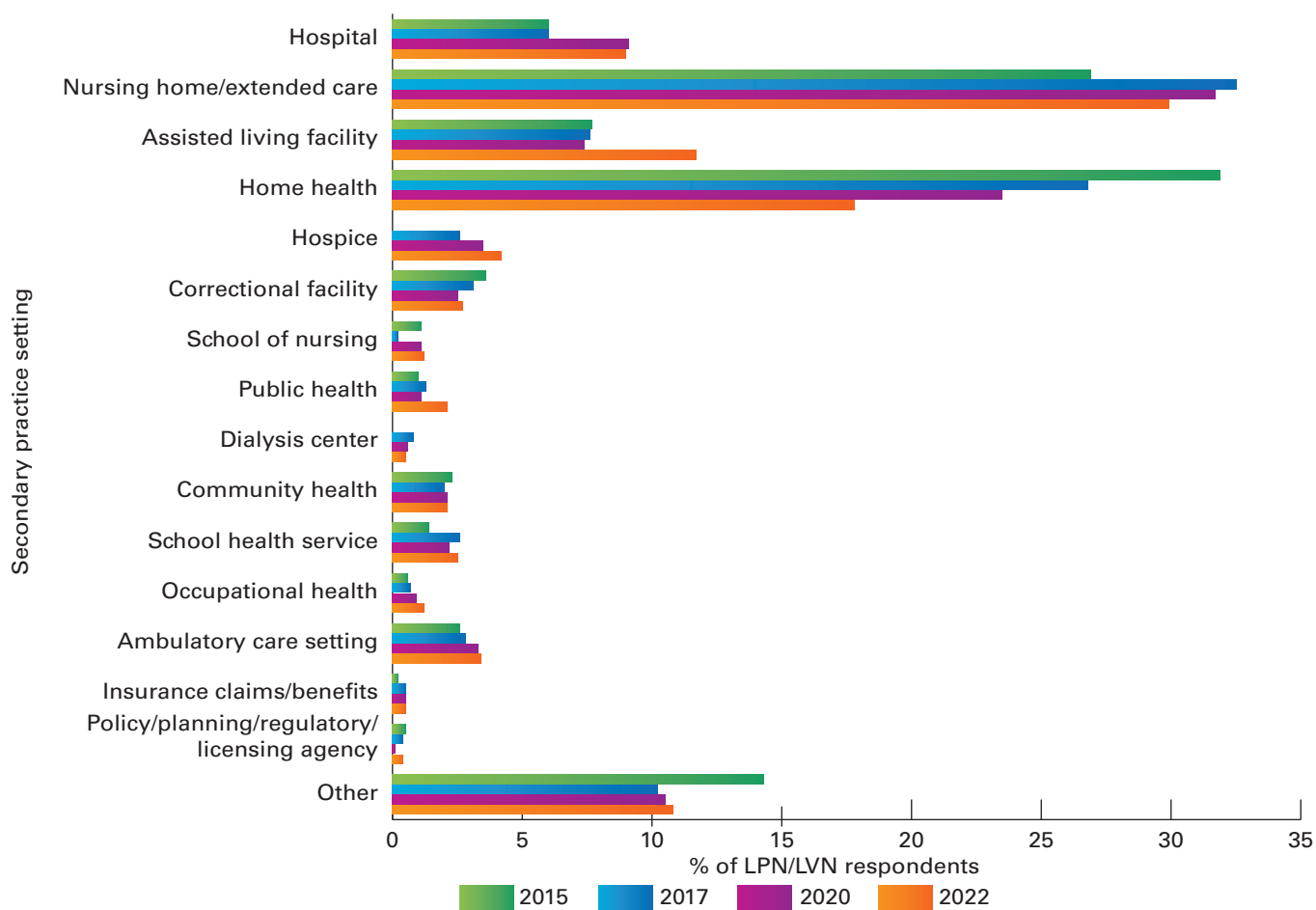
Secondary Nursing Position Title

Of those LPNs/LVNs who reported more than one nursing position, 66.4% reported being staff nurses in their secondary position. This represents a decline from 2020, when 77.7% of LPNs/LVNs were staff nurses. About 20% of respondents reported other health-related titles (Table 78 and Figure 33).

TABLE 78

Secondary Nursing Position Title of Licensed Practical Nurses/Licensed Vocational Nurses, 2015–2022

Secondary Nursing Title	2015 (N = 2,980.3)		2017 (N = 4,217.2)		2020 (N = 4,942.1)		2022 (N = 8,533.0)	
	n	%	n	%	n	%	n	%
Consultant	37.5	1.3	45.2	1.1	47.0	1.0	170.3	2.0
Nurse researcher	7.0	0.2	1.3	0.0	7.3	0.2	18.6	0.2
Nurse executive	10.4	0.4	10.0	0.2	8.6	0.2	45.7	0.5
Nurse manager	59.9	2.0	141.4	3.4	153.2	3.1	350.0	4.1
Nurse faculty/educator	132.0	4.4	58.4	1.4	107.9	2.2	165.4	1.9
APRN	34.1	1.1	2.6	0.1	36.1	0.7	24.7	0.3
Staff nurse	2,167.2	72.7	3,309.2	78.5	3,842.2	77.7	5,666.0	66.4
Case manager	53.8	1.8	66.6	1.6	111.6	2.3	240.4	2.8
Other – health related	440.3	14.8	528.9	12.5	586.2	11.9	1,682.9	19.7
Other – not health related	38.3	1.3	53.5	1.3	42.1	0.9	169.1	2.0

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

FIGURE 33

Most Reported Secondary Nursing Position Title of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs)

Providing Direct Patient Care—Secondary Nursing Practice Position

In 2022, 81.7% of LPNs/LVNs reported providing direct patient care in their secondary nursing position. In 2020, the first year this question was asked, 85.5% of LPNs/LVNs said they provided direct patient care in their secondary nursing position (Table 79).

TABLE 79

Providing Direct Patient Care—Secondary Nursing Practice Position of Licensed Practical Nurses/Licensed Vocational Nurses, 2020–2022

Provide Direct Care	2020 (N = 5,140.8)		2022 (N = 8,035.0)	
	n	%	*n*	%
Yes	4,393.8	85.5	6,565.3	81.7
No	747.0	14.5	1,469.7	18.3

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Annual Earnings

2022 Pretax Annual Earnings From Primary Nursing Position

The median pretax annual earnings for LPNs/LVNs grew to $50,000 in 2022. Pretax wages grew by about 14% since 2020, when the median pretax annual wage was $44,000. Compared with 2020, the percentage of LPNs/LVNs earning less than $40,000 annually (24.3%) decreased by 10.2% in 2022, while those earning between $40,000 and $60,000 (42.4%) increased by 1.5% between 2020 and 2022. The percentage of respondents in categories making between $60,000 and $80,000 per year (22.0%) also showed an increase of 6.3% from 2020 to 2022. The proportion of LPNs/LVNs making between $80,00 and $100,000 (6.8%) increased by 2.5%, and those making more than $100,000 per year (4.6%) remained the same as reported in 2020 (Table 80 and Figure 34).

TABLE 80

Annual Earnings of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) for Nurses' Primary Nursing Position, 2015–2022

Annual Earnings	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LVN Survey Respondents	N = 19,436.4		N = 24,473.1		N = 26,035.6		N = 34,311.9	
<$40,000	10,138.3	52.2	11,190.3	45.7	8,988.0	34.5	8,321.6	24.3
$40,000 to <$60,000	7,088.3	36.5	9,819.4	40.1	10,653.6	40.9	14,546.7	42.4
$60,000 to <$80,000	1,418.5	7.3	2,243.9	9.2	4,073.6	15.7	7,559.4	22.0
$80,000 to <$100,000	174.6	0.9	361.1	1.5	1,118.1	4.3	2,318.4	6.8
>$100,000	616.8	3.2	858.4	3.5	1,202.3	4.6	1,565.8	4.6
U.S. LPN/LVN Population								
<$40,000	304,877	52.2	255,845	45.7	213,554	34.5	138,521	24.3
$40,000 to <$60,000	213,157	36.5	224,501	40.1	253,129	40.9	242,143	42.4
$60,000 to <$80,000	42,657	7.3	51,303	9.2	96,788	15.7	125,833	22.0
$80,000 to <$100,000	5,250	0.9	8,256	1.5	26,566	4.3	38,592	6.8
>$100,000	18,548	3.2	19,626	3.5	28,567	4.6	26,064	4.6

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses.

FIGURE 34

Annual Earnings of Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) for Primary Nursing Position
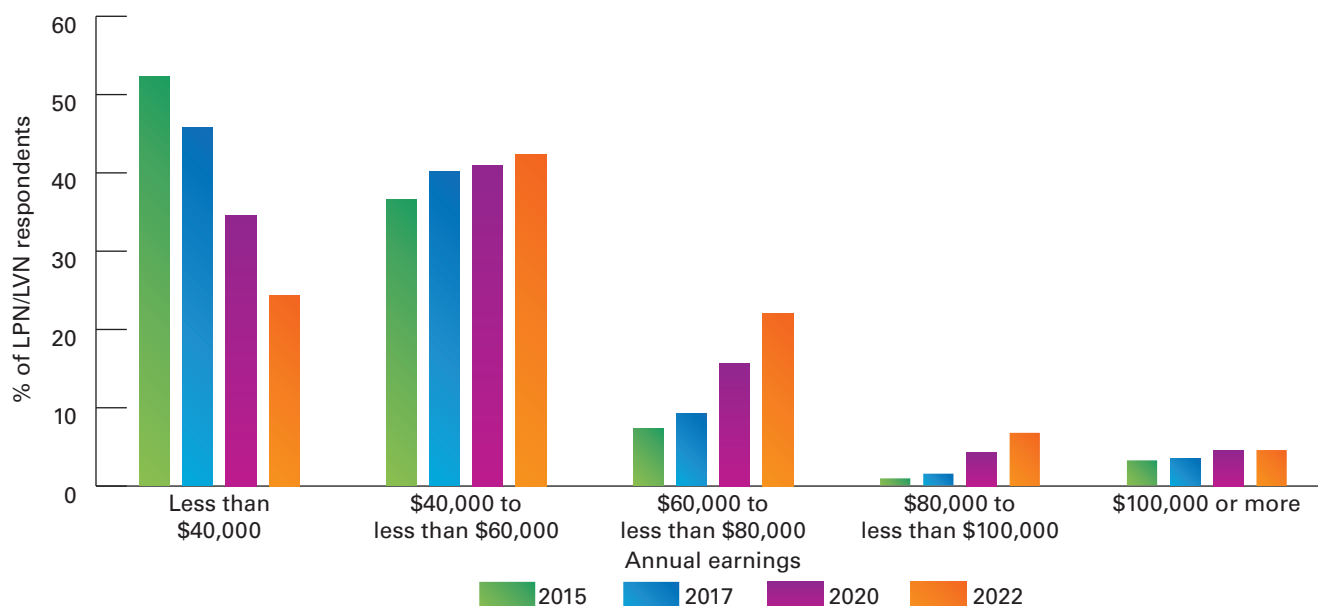
Earnings by Gender and Specialty

As was seen in the analysis of RNs, the annual median wage was greater for male LPNs/LVNs across most specialties in 2022. Female LPNs/LVNs reported higher earnings in anesthesia, emergency/trauma care, informatics, information technology, and orthopedics. LPNs/LVNs in informatics, radiology, rehabilitation, and palliative care/hospice reported the highest median wage, while LPNs/LVNs in school health, women's health, neonatology, and family health reported the lowest median wage (Table 81).

TABLE 81

Median Annual Earnings of Licensed Practical Nurses/Licensed Vocational Nurses for Primary Nursing Position by Nurses' Gender and Specialty, 2022

Specialty	Male		Female		Nonbinary		Total	
	n	*Mdn*	*n*	*Mdn*	*n*	*Mdn*	*n*	*Mdn*
Acute care/critical care	41	$62,000	369	$50,000	4	$53,000	414	$50,000
Adult health	76	$59,000	588	$50,000	2	$30,556	666	$50,000
Anesthesia	1	$52,000	8	$52,900	-	-	9	$52,000
Cardiology	4	$68,100	125	$48,000	-	-	129	$48,000
Community	12	$56,500	134	$50,000	1	$80,000	147	$50,000
Emergency/trauma	21	$42,000	104	$47,500	-	-	125	$46,000
Family health	18	$55,000	758	$42,000	2	$25,000	778	$42,000
Genetics	12	$57,500	210	$51,100	1	$34,000	223	$52,000
Geriatric/gerontology	266	$60,000	3,486	$52,000	10	$47,000	3,762	$52,000
Home health	68	$55,500	816	$48,000	3	$45,000	887	$49,000
Informatics	4	$55,000	22	$66,000	-	-	26	$63,500
Information technology	2	$47,500	16	$56,000	-	-	18	$51,000
Maternal-child health/obstetrics	-	-	111	$45,000	-	-	111	$45,000
Medical-surgical	40	$50,000	403	$45,000	1	$18,000	444	$45,000
Neonatal	1	$48,000	7	$40,000	-	-	8	$41,000
Nephrology	12	$59,000	93	$50,000	-	-	105	$50,000
Neurology/neurosurgical	7	$52,000	50	$44,000	-	-	57	$45,696

(continued)

Median Annual Earnings of Licensed Practical Nurses/Licensed Vocational Nurses for Primary Nursing Position by Nurses' Gender and Specialty, 2022 *(continued)*

Specialty	Male		Female		Nonbinary		Total	
	n	*Mdn*	*n*	*Mdn*	*n*	*Mdn*	*n*	*Mdn*
Occupational health	13	$60,000	92	$47,132	2	$62,000	105	$49,000
Oncology	6	$48,250	81	$45,000	-	-	87	$45,000
Orthopedic	3	$39,590	109	$45,000	-	-	112	$44,800
Palliative care/hospice	15	$62,000	199	$52,000	2	$22,500	216	$52,932
Pediatrics	25	$50,000	721	$42,000	-	-	746	$43,000
Perioperative	6	$53,650	56	$47,183	-	-	62	$47,333
Primary care	38	$60,000	740	$48,710	1	$120,000	779	$49,483
Public health	4	$61,500	142	$43,750	1	$70,000	147	$45,000
Psychiatric/mental health/substance abuse	40	$56,500	264	$50,000	1	$63,000	305	$50,000
Radiology	1	$69,000	1	$50,000	-	-	2	$59,500
Rehabilitation	30	$55,500	247	$54,616	1	$42,000	278	$54,808
School health	6	$41,850	168	$34,500	-	-	174	$35,000
Urology	3	$50,000	19	$47,000	-	-	22	$47,500
Women's health	-	-	64	$41,000	-	-	64	$41,000
Other – clinical specialties	3	$90,000	57	$50,000		-	60	$51,325
Other – nonclinical specialties	45	$60,000	589	$50,000	1	$52,000	635	$50,000
Total	823	$58,000	10,849	$49,184	31	$44,000	13,992	$50,000

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses.

Earnings by Highest Education

As was found in previous surveys, LPNs/LVNs holding a baccalaureate degree reported the highest median annual wage ($60,000). LPNs/LVNs with an ADN ($50,000) earned similar wages to those with a vocational/practical certificate ($50,000) and those with a diploma ($48,000) (Table 82).

TABLE 82

Median Annual Earnings of Licensed Practical Nurses/Licensed Vocational Nurses of Primary Nursing Position and by Highest Education, 2017–2022

Highest Education Level	2017		2020		2022	
	n	*Mdn*	*n*	*Mdn*	*n*	*Mdn*
Vocational/practical certificate-nursing	16,750	$42,000	17,947	$43,000	10,238	$50,000
Diploma	3,709	$41,600	3,589	$43,000	2,174	$48,000
Associate degree	2,199	$40,000	3,565	$45,000	2,119	$50,000
Baccalaureate degree	227	$51,619	566	$60,000	262	$60,000

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses.

Earnings by State

Reported annual median wage rose in most states in 2022. Only five states and territories did not experience annual median wage increases. The highest median earning for LPNs/LVNs were practicing in California ($64,000), Rhode Island ($60,000), Oregon ($60,000), Nevada ($60,000), and New Jersey, Massachusetts, Hawaii, and Connecticut ($58,000 each). The lowest median earnings for LPNs/LVNs were in West Virginia ($40,020), Alabama ($44,000), and Arkansas, Iowa, Kentucky, Louisiana, Minnesota, Mississippi, Nebraska, North Dakota, Oklahoma, and Tennessee ($45,000 each). As stated above, all but five states saw increases in wages between 2020 and 2022, with 35 states seeing median wages increase by more than 10%. Wages rose between 5%–10% in nine states and by 1%–5% in three states. Wages did not change from 2020 in three states/jurisdiction (New Hampshire, New Mexico, and District of Columbia), while median annual earnings declined in two states (New York: -16.7% and Texas: -0.8%) (Table 83).

TABLE 83

Median Annual Earnings in Primary Nursing Position by Jurisdictions Where Licensed Practical Nurses/Licensed Vocational Nurses Are Currently Practicing, 2015–2022

State/Jurisdiction	2015	2017	2020	2022	State/Jurisdiction	2015	2017	2020	2022
Alabama	$33,000	$35,000	$39,000	$44,000	Montana	$36,260	$37,440	$43,000	$47,000
Alaska	$50,000	$52,000	$56,559	$58,972	Nebraska	$33,000	$38,000	$40,000	$45,000
Arizona	$48,000	$48,000	$52,000	$55,000	Nevada	$48,000	$49,000	$55,000	$60,000
Arkansas	$33,500	$37,000	$40,000	$45,000	New Hampshire	$42,000	$45,500	$50,000	$50,000
California	$45,000	$48,000	$55,836	$64,000	New Jersey	$45,000	$48,000	$54,000	$58,000
Colorado	$42,000	$45,000	$50,000	$55,000	New Mexico	$45,000	$45,000	$50,000	$50,000
Connecticut	$49,000	$50,000	$52,360	$58,000	New York	$40,000	$45,000	$60,000	$50,000
Delaware	$45,000	$47,000	$50,000	$52,000	North Carolina	$38,000	$41,000	$44,000	$50,000
District of Columbia	$53,000	$50,000	$55,000	$55,000	North Dakota	$35,000	$37,000	$40,000	$45,000
Florida	$37,000	$40,000	$43,210	$50,000	Ohio	$34,000	$36,000	$40,000	$47,000
Georgia	$36,000	$39,800	$42,000	$50,000	Oklahoma	$35,000	$37,000	$40,000	$45,000
Hawaii	$45,000	$46,000	$50,000	$58,000	Oregon	$42,240	$47,000	$53,000	$60,000
Idaho	$32,560	$38,000	$42,000	$47,212	Pennsylvania	$39,000	$40,320	$44,000	$50,000
Illinois	$40,000	$40,000	$45,000	$50,000	Rhode Island	$45,000	$50,000	$50,000	$60,000
Indiana	$36,000	$40,000	$45,000	$50,000	South Carolina	$37,124	$40,000	$42,000	$48,000
Iowa	$34,640	$36,000	$41,000	$45,000	South Dakota	$30,000	$34,865	$38,000	$45,500
Kansas	$35,000	$39,000	$41,500	$48,000	Tennessee	$34,000	$36,000	$40,000	$45,000
Kentucky	$35,000	$40,000	$42,000	$45,000	Texas	$40,082	$43,000	$49,383	$49,000
Louisiana	$35,000	$38,000	$40,000	$45,000	Utah	$36,000	$41,000	$41,000	$47,646
Maine	$36,000	$40,000	$43,500	$50,000	Vermont	$37,128	$42,000	$45,000	$50,381
Maryland	$45,000	$50,000	$53,012	$56,486	Virginia	$36,000	$40,000	$44,000	$50,000
Massachusetts	$48,000	$50,000	$54,000	$58,000	Washington	$44,000	$48,000	$54,000	$55,000
Michigan	$35,000	$40,000	$45,000	$50,000	West Virginia	$32,000	$35,000	$36,000	$40,020
Minnesota	$33,000	$36,750	$40,000	$45,000	Wisconsin	$35,000	$38,000	$40,000	$50,000
Mississippi	$35,000	$35,000	$37,000	$45,000	Wyoming	$40,000	$40,500	$44,000	$50,000
Missouri[a]	-	-	$40,000	$50,000	Northern Mariana Islands	$55,000	$28,500	$32,959	$45,000

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses.

[a] Missouri did not participate in the 2015 and 2017 surveys.

Earnings by Years Licensed and Age

As was previously noted with RNs, wages for LPNs/LVNs saw steady increases by years of experience except for LPNs/LVNs with more than 10 years of experience, which did not change. LPNs/LVNs reported wage increases across the younger age groups. Earnings in the 30 to 34 age group increased by 14.2% over the 17 to 29 age group, 5.0% in the 35 to 39 age group, and 4.2% in the 40 to 44 age group over their younger age groups. Two age groups (60-64 and ≥65) reported median wage decreases when compared to the next youngest age group (Table 84).

TABLE 84

Median Annual Earnings of Licensed Practical Nurses/Licensed Vocational Nurses for Primary Nursing Position by Nurses' Years Licensed and Age, 2022

Number of Years Licensed	0–1		2–5		6–10		≥11		Total	
Age, y	n	Mdn	n	Mdn	n	Mdn	n	Mdn	n	Mdn
17–29	299	$36,000	615	$42,000	126	$41,375	7	$49,820	1,047	$40,000
30–34	132	$40,000	410	$47,217	461	$46,000	118	$46,000	1,121	$45,696
35–39	97	$40,000	305	$46,630	396	$48,000	542	$49,000	1,340	$48,000
40–44	83	$40,000	273	$50,000	385	$50,000	873	$50,000	1,614	$50,000
45–49	62	$45,000	173	$50,000	291	$52,000	1,075	$51,000	1,601	$50,000

(continued)

Median Annual Earnings of Licensed Practical Nurses/Licensed Vocational Nurses for Primary Nursing Position by Nurses' Years Licensed and Age, 2022 *(continued)*

Number of Years Licensed	0–1		2–5		6–10		≥11		Total	
Age, y	*n*	*Mdn*	*n*	*Mdn*	*n*	*Mdn*	*n*	*Mdn*	*n*	*Mdn*
50–54	55	$49,000	138	$53,500	256	$53,000	1,438	$52,000	1,887	$52,000
55–59	20	$53,000	84	$48,250	151	$56,000	1,520	$52,000	1,775	$52,000
60–64	13	$40,000	32	$54,500	108	$50,000	1,771	$50,000	1,924	$50,000
≥65	5	$54,000	38	$43,000	49	$52,000	1,591	$47,000	1,683	$47,000
Total	766	$40,000	2,068	$46,113	2,223	$50,000	8,935	$50,000		

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. Annual earnings include overtime and bonuses but do not include sign-on bonuses.

Telehealth Utilization

Percentage of Time Providing Telehealth

Telehealth utilization by LPNs/LVNs remains relatively unchanged from previous years, with a little less than half of LPNs/LVNs (44.5%) not providing services via telehealth. However, slightly more LPNs/LVNs who reported utilizing telehealth all the time rose to 15.2%, an increase of 3.8% from the 2020 survey. About a quarter (23.4%) of LPNs/LVNs spend up to a quarter of their time and 12.5% spend between a quarter and half of their time proving services via telehealth (Table 85 and Figure 35).
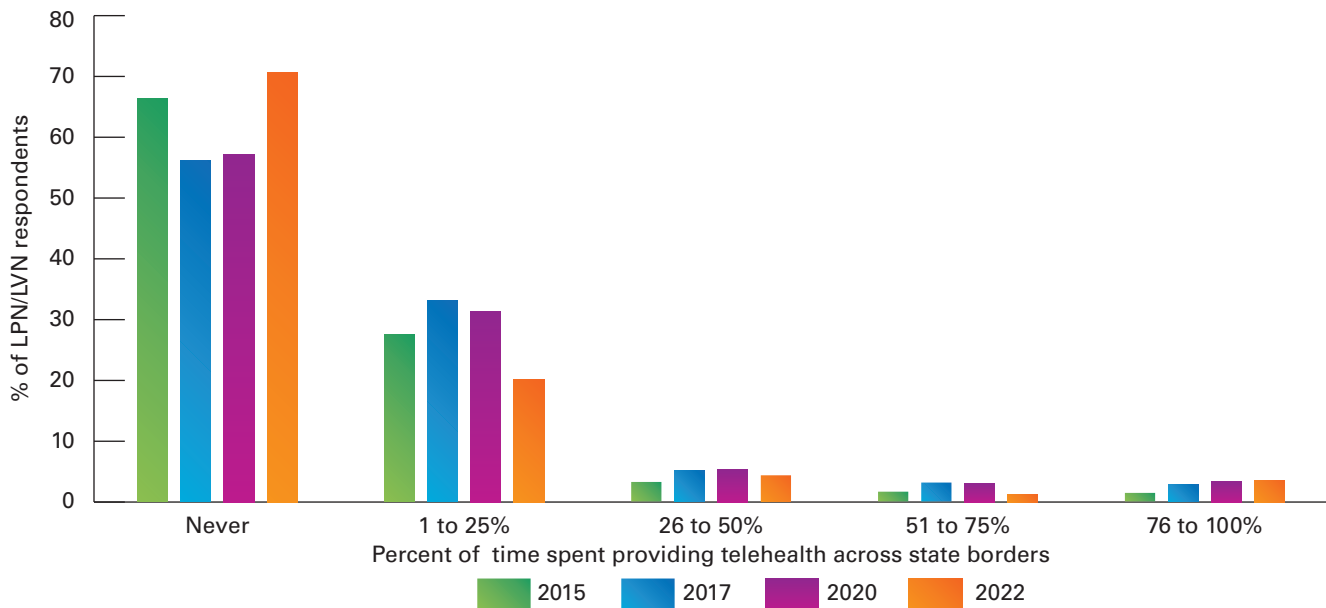
TABLE 85

Percentage of Time Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) Spend Providing Telehealth, 2015–2022

Provide Telehealth	2015		2017		2020		2022	
	n	%	*n*	%	*n*	%	*n*	%
LPN/LVN Survey Respondent	*N* = 23,619.9		*N* = 27,760.6		*N* = 31,095.7		*N* = 39,650.3	
Never	12,723.1	53.9	12,715.8	45.8	15,504.3	49.9	17,650.4	44.5
1%–25%	5,496.6	23.3	6,436.4	23.2	6,799.8	21.9	9,283.1	23.4
26%–50%	2,207.1	9.3	2,821.3	10.2	2,993.3	9.6	4,965.5	12.5
51%–75%	1,490.6	6.3	2,253.8	8.1	2,240.4	7.2	1,716.6	4.3
76%–100%	1,702.4	7.2	3,533.3	12.7	3,557.9	11.4	6,034.7	15.2
U.S. LPN/LVN Population								
Never	382,606	53.9	290,722	45.8	368,381	49.9	293,806	44.5
1%–25%	165,294	23.3	147,157	23.2	161,563	21.9	154,526	23.4
26%–50%	66,373	9.3	64,503	10.2	71,121	9.6	82,656	12.5
51%–75%	44,826	6.3	51,529	8.1	53,232	7.2	28,574	4.3
76%–100%	51,195	7.2	80,781	12.7	84,535	11.4	100,453	15.2

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

FIGURE 35

Percent of Time Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) Providing Telehealth

Percent of time spent providing telehealth

■ 2015 ■ 2017 ■ 2020 ■ 2022
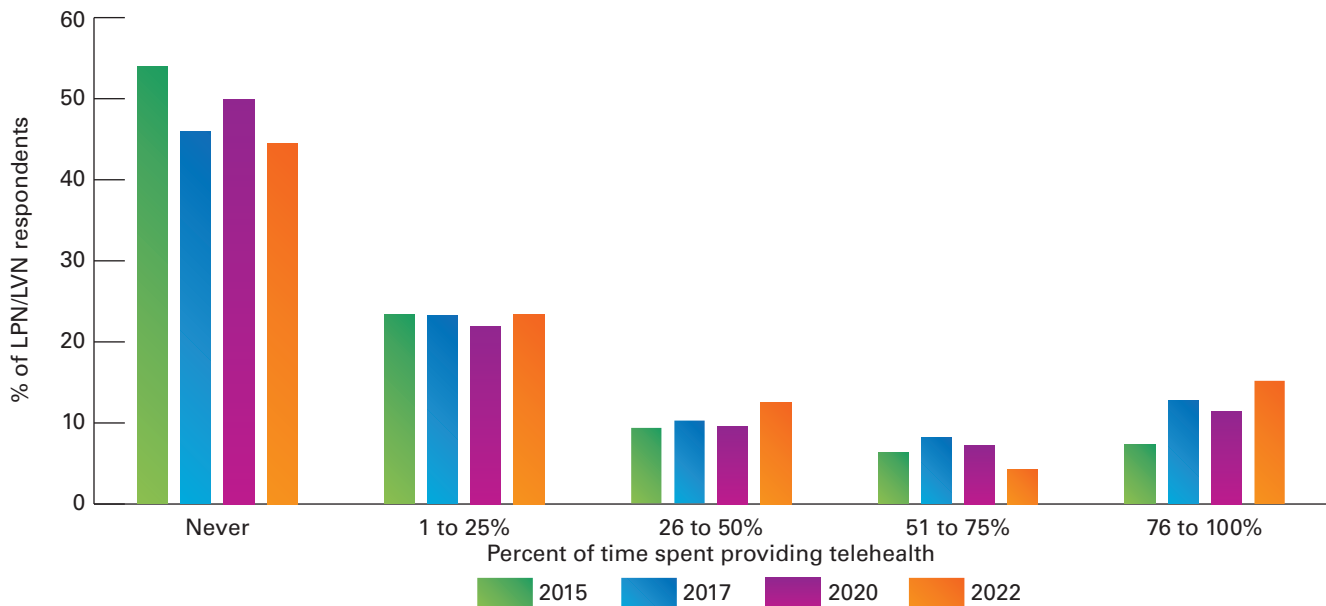
Telehealth Across State Borders

About 71% of LPNs/LVNs did not utilize telehealth to provide services to patients across state lines in 2022. Twenty percent of LPNs/ LVNs reported spending between 1% and 25% of their time providing services to patients in other states through telehealth. Utilization of services across state borders through telehealth declined in compared to the reported 2020 rates (Table 86 and Figure 36).

TABLE 86

Percentage of Time Licensed Practical Nurses/Licensed Vocational Nurses Spend Providing Telehealth Across State Borders, 2015–2022

Provide Telehealth	2015 (N = 11,421.5)		2017 (N = 12,214.3)		2020 (N = 12,981.4)		2022 (N = 23,516.1)	
	n	%	*n*	%	*n*	%	*n*	%
Never	7,566.5	66.2	6,849.9	56.1	7,413.4	57.1	16,616.9	70.7
1%–25%	3,140.4	27.5	4,040.1	33.1	4,062.8	31.3	4,721.9	20.1
26%–50%	371.1	3.2	622.9	5.1	692.7	5.3	1,043.3	4.4
51%–75%	180.4	1.6	372.2	3.1	390.8	3.0	288.8	1.2
76%–100%	163.1	1.4	329.3	2.7	421.7	3.3	845.1	3.6

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

FIGURE 36

Percent of Time Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) Spend Providing Telehealth Across State Borders

Telehealth Across National Borders

A little more than 10% of LPNs/LVNs in the United States provide services via telehealth across international borders. This rate has changed little from previous surveys (Table 87 and Figure 37).

TABLE 87

Percentage of Time Licensed Practical Nurses/Licensed Vocational Nurses Spend Providing Telehealth Across National Borders, 2015–2022

Provide Telehealth	2015 (*N* = 11,089.2)		2017 (*N* = 11,117.1)		2020 (*N* = 12,295.4)		2022 (*N* = 16,513.5)	
	n	%	*n*	%	*n*	%	*n*	%
Never	10,201.8	92.0	9,800.3	88.2	11,068.0	90.0	14,768.6	89.4
1%–25%	633.3	5.7	807.0	7.3	814.2	6.6	1,074.2	6.5
26%–50%	129.0	1.2	208.1	1.9	193.3	1.6	313.3	1.9
51%–75%	82.0	0.7	189.0	1.7	115.8	0.9	66.3	0.4
76%–100%	43.1	0.4	112.7	1.0	104.2	0.9	291.2	1.8

Note. Survey participants were asked to answer this question only if they were actively employed in nursing. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

FIGURE 37

Percent of Time Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) Spend Providing Telehealth Across National Borders
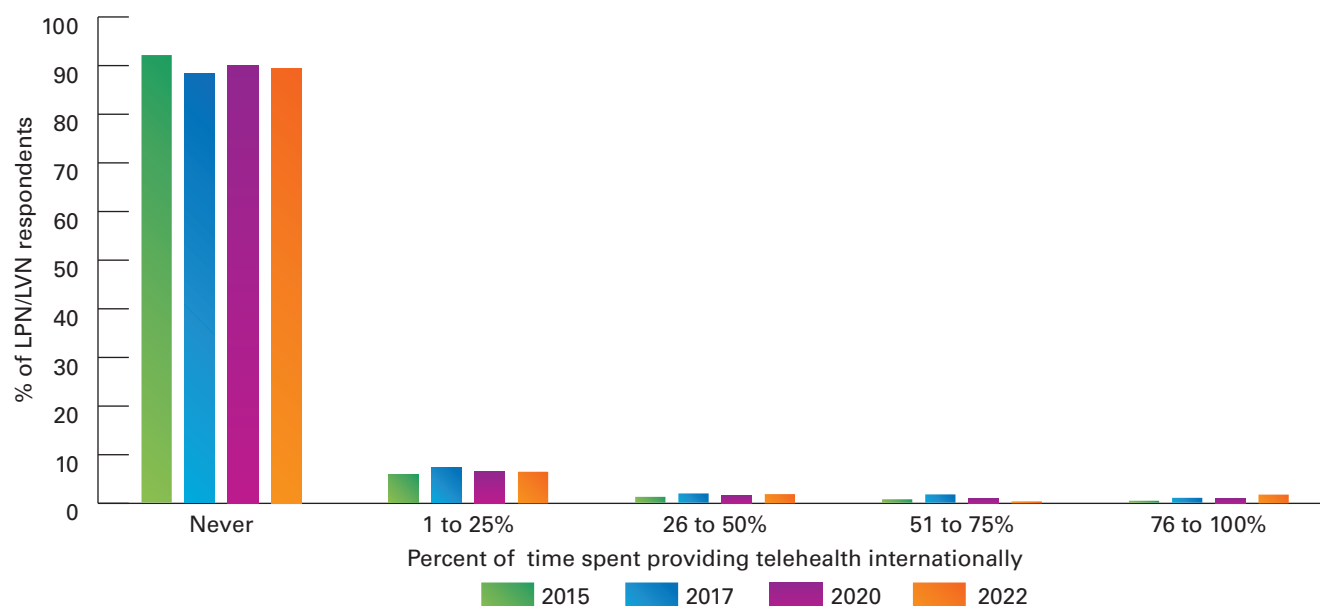
Modes of Communications Used for Telehealth

As seen in previous years, the use of the telephone is the most common mode (88.1%) of communication for telehealth provision by LPNs/LVNs. The use of electronic messaging was the second most common mode (35.6%) and has increased markedly in use since 2020. Email was the third most common mode at 32.8% and was relatively unchanged since 2020. The use of video call technology was used in 30.9% of provisions of telehealth service and had increased by 19.6% since 2020 (Table 88 and Figure 38).

TABLE 88

Modes of Communication Used by Licensed Practical Nurses/Licensed Vocational Nurses for Telehealth, 2015–2022

Mode of Telehealth	2015 (N = 8,881.7)		2017 (N = 11,164.0)		2020 (N = 12,154.9)		2022 (N = 16,948.4)	
	n	%	*n*	%	*n*	%	*n*	%
Electronic messaging	1,947.7	21.9	2,510.8	22.5	3,280.4	27.0	6,036.3	35.6
Virtual ICU	84.9	1.0	125.2	1.1	287.5	2.4	830.2	4.9
Telephone	8,498.5	95.7	10,405.0	93.2	11,274.7	92.8	14,924.3	88.1
Email	2,622.2	29.5	3,226.2	28.9	3,706.7	30.5	5,565.4	32.8
Video call	207.4	2.3	260.7	2.3	1,371.8	11.3	5,236.4	30.9
Other	883.0	9.9	1,027.2	9.2	998.1	8.2	1,631.8	9.6

Note. ICU = intensive care unit. Survey participants were asked to answer this question only if they were actively employed in nursing. Respondents were asked to select all that apply. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

FIGURE 36

Modes of Communication Used by Licensed Practical Nurses/Licensed Vocational Nurses (LPNs/LVNs) for Telehealth
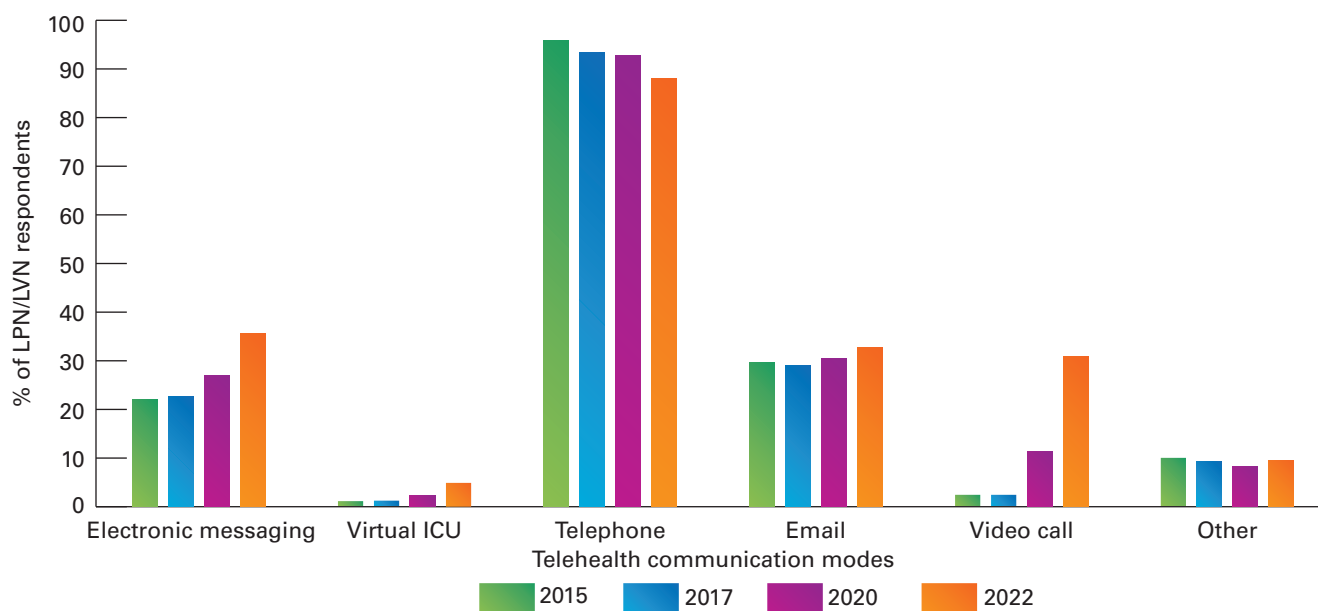
Note. ICU = intensive care unit.

Impact of the COVID-19 Pandemic

Impact on Employment

The coronavirus pandemic affected LPN/LVN respondents most through its impact on their workload. More than 60% reported an increase in their workload due to the pandemic. About 11% of LPN/LVN respondents reported a change in their practice setting because of COVID-19 (Table 89).

TABLE 89

Impact of COVID on Employment of Licensed Practical Nurses/Licensed Vocational Nurses, 2022

Impact	%
My workload increased	62.9
I became a travel nurse	3.7
I changed my practice setting	11.4
I started doing telehealth	4.8
I left nursing	4.0
I retired	5.9
No impact	14.4
Other	17.2

Note. Respondents were asked to select all that apply. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

How Often Are You Emotionally Drained?

About a quarter of LPNs/LVNs reported they were emotionally drained from work every day and another 25.8% reported they were emotionally drained a few times per week. Thus, about a half of LPNs/LVNs reported that they were emotionally drained from work at least a few times every week. Only 6.9% reported never feeling emotionally drained from work (Table 90).

TABLE 90

Feeling of Being Emotionally Drained From Work of Licensed Practical Nurses/Licensed Vocational Nurses, 2022

Felt emotionally drained	2022 (N = 48,786.9)	
	n	%
Never	3,385.1	6.9
A few times a year	5,032.3	10.3
Once a month or less	3,535.8	7.3
A few times a month	7,823.6	16.0
Once a week	4,365.8	9.0
A few times a week	12,580.4	25.8
Every day	12,064.0	24.7

Note. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

How Often Do You Feel Used Up?

Over half of LPNs/LVNs reported feeling used up at the end of their workday, with more than half of this group feeling that way every day. Less than 20% reported feeling used up at the end of their workday only a few times per year or never (Table 91).

TABLE 91

Licensed Practical Nurses/Licensed Vocational Nurses Who Reported Feeling Used Up at the End of Their Workday, 2022

Felt Used Up	2022 (N = 48,421.6)	
	n	%
Never	4,259.8	8.8
A few times a year	3,783.9	7.8
Once a month or less	3,465.1	7.2
A few times a month	5,943.5	12.3
Once a week	4,288.8	8.9
A few times a week	12,397.3	25.6
Every day	14,283.4	29.5

Note. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

How Often Do You Feel Fatigued When You Awake?

Over a quarter of LPNs/LVNs reported feeling fatigued when they get up and have to face another day on the job every day. Another 24.2% reported feeling fatigued when they get up and have to face another day on the job a few times a week. About 10% reported never feeling fatigued when they get up and have to face another day on the job (Table 92).

TABLE 92

Licensed Practical Nurses/Licensed Vocational Nurses Who Reported Feeling Fatigued When They Get Up, 2022

Felt Fatigued	2022 (N = 48,501.1)	
	n	%
Never	5,104.7	10.5
A few times a year	4,594.4	9.5
Once a month or less	3,855.6	8.0
A few times a month	6,175.4	12.7
Once a week	4,340.0	9.0
A few times a week	11,716.8	24.2
Every day	12,714.2	26.2

Note. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

How Often Do You Feel Burned-Out From Work?

A quarter of LPNs/LVNs reported feeling burned-out from work every day, and nearly 20% reported feeling burned-out at least once per week. About 13% reported never feeling burned-out from work (Table 93).

TABLE 93

Licensed Practical Nurses/Licensed Vocational Nurses Who Reported Feeling Burned-Out From Work, 2022

Felt Burned-Out	2022 (*N* = 48,541.6)	
	n	%
Never	6,211.2	12.8
A few times a year	6,315.6	13.0
Once a month or less	4,158.7	8.6
A few times a month	6,193.9	12.8
Once a week	3,881.5	8.0
A few times a week	9,482.2	19.5
Every day	12,298.6	25.3

Note. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

How Often Did You Feel You Were at the End of Your Rope?

About 30% of LPNs/LVNs reported feeling they were at the end of their rope at least a few times per week, with half of this group feeling like that every day. About a third of LPNs/LVNs never felt like they were at the end of their rope (Table 94).

TABLE 94

Licensed Practical Nurses/Licensed Vocational Nurses Who Reported Feeling at the End of Their Rope, 2022

Felt at the End of Their Rope	2022 (*N* = 48,323.7)	
	n	%
Never	15,773.1	32.6
A few times a year	5,867.5	12.1
Once a month or less	3,840.2	8.0
A few times a month	4,924.3	10.2
Once a week	3,789.2	7.8
A few times a week	6,839.5	14.2
Every day	7,289.9	15.1

Note. This question was not administered in the jurisdictions of Missouri, North Carolina, New Mexico, Washington, or Wyoming.

Discussion and Implications

Demographics

Many older nurses left the workforce between 2020 and 2022. This decline was associated with estimated losses to the workforce of at least 200,000 experienced RNs and 60,000 experienced LPNs/LVNs. The loss of the intellectual capital of older nurses is concerning, but that loss is somewhat offset by the growing number of younger nurses in the profession.

The workforce in 2022 is more demographically diverse and representative of the country's population than in any year in which this study was previously conducted. The racial composition reflects growth in diversity with increases reflected for Hispanic and multiracial nursing categories. It is unclear whether this increase in diversity will slow. After years of decline, the proportion of RNs and LPNs/LVNs identifying as White/Caucasian in the youngest age ranges has risen back to the level of the overall population mean.

Though women continue to account for the majority of nurses, the proportion of men licensed as RNs or LPNs/LVNs in the country has increased steadily since at least 2015. Additionally, male nurses are more racially diverse than their female counterparts. Although the rate of growth appears to be leveling, this is a positive trend for gender diversity in the profession.

Employment

Nursing employment jumped significantly. About 88% of all licensed nurses who maintain licensure are employed in nursing; among those who are employed in nursing, roughly 71% work full-time, 10% work part-time, and 7% work per diem shifts. While the proportion of nurses working in nursing part-time or per diem has remained steady since 2020, the proportion of nurses working full-time has increased by about 5% during this same time.

Over the past reporting periods, there has been a consistent number of licensed RNs and LPNs/LVNs who report working in fields other than nursing. Using weighted sample values, this translates to approximately 200,000 licensees. Proportionally more LPNs/LVNs than RNs work in a field other than nursing (5.5% vs 3.4%, respectively). Despite recent concerns about nurses leaving the profession, a larger proportion is now practicing in nursing roles than in previous years.

But future employment may still be impacted by the exit of nurses. In the survey, respondents were asked if they plan to retire in the next 5 years, and 28% of all nurses replied positively to the question, an increase from the 21% who responded positively in 2020. These data are consistent with the idea that the long-anticipated "retirement tsunami of nurses" (McMenamin, 2014) has begun.

For nurses who report being unemployed, about 47% of RNs and roughly 42% of LPNs/LVNs cite taking care of home and family as their reason for not working. The COVID-19 pandemic is another significant reason reported for unemployment among RNs (22.6%) and LPNs/LVNs (20.2%). In past reports, about 11% of RNs and 17% of LPNs/LVNs indicated a disability was the main reason for being unemployed, but this has declined in 2022. About 7% of RNs and 13% of LPNs/LVNs reported a disability as the reason for being unemployed in 2022.

Most nurses (82.4% of RNs and 79.2% of LPNs/LVNs) work in only one position in nursing. However, 17.6% of RNs and 20.9% of LPNs/LVNs reported that they work in two or more nursing positions. Nearly 53% of nurses work 32 to 40 hours per week and about a third of nurses work more than 40 hours each week.

Hospitals continue to be the primary practice setting for RNs (57.5%), followed by the ambulatory care setting (10.4%), nursing homes (3.9%), and home health (3.4%). The primary practice setting for LPNs/LVNs is nursing homes/extended care settings (30.6%), followed by hospitals (11.7%) and home health (11.6%). In comparison to 2020, increased proportions of RNs and LPNs/LVNs reported providing direct patient care in their jobs.

Education

In the 2022 survey, the educational accomplishment of RNs increased with more than 70% of the workforce holding a baccalaureate degree or higher. But the nation continues to fall short of the National Academy of Medicine's (formerly the Institute of Medicine) goal for 80% of RNs to hold a baccalaureate degree or higher (Institute of Medicine, 2011). This goal remains relevant and is discussed in the National Academy of Medicine's (2021) report on the future of nursing.

The proportion of baccalaureate-prepared and master's-prepared nurses increased from 2020 to 2022, while the proportion of nurses earning a diploma, associate degree, or vocational/practical certificate decreased from 2020 to 2022.

There is evidence that RNs and LPNs/LVNs are continuing their nursing education after obtaining their initial nursing license. From 2015 through 2022, diplomas in nursing and ADNs decreased from 39.3% to 28.4%, while bachelor's of science in nursing, master's of science in nursing, DNPs, and other doctoral degrees increased from 59.9% to 70.8%; however, PhDs remained fixed around 0.9%. No growth or slow growth of PhD-prepared nurses is concerning because this population of nurses has the expertise to conduct research, generate new knowledge, and serve in the role of faculty to prepare the nation's future nurses.

Younger nurses tended to hold a baccalaureate degree as their highest level of nursing education, while older nurses tended to have a nursing diploma or associate degree as their highest level of nursing education. The highest level of education was very

similar for male and female nurses with respect to baccalaureate and associate degrees. However, male RNs tended to hold doctorate degrees at a slightly higher proportion than female RNs (3.1% vs. 2.6%).

Licensure

As in previous years, most RNs (96%) and LPNs/LVNs (99%) obtained their initial nursing license in the United States. However, evidence suggests that these nurses are less experienced now than in previous years. The proportion of RNs licensed for 20 or fewer years was at the highest level in 2022 (62.5%) when compared to the previous three surveys. The same trend was reported in the LPN/LVN workforce; in 2022, 69.4% of the responding LPNs/LVNs were licensed for 20 or fewer years.

By contrast, APRN credentials and multistate licenses are now more prevalent. The proportion of RNs holding an APRN credential recovered from the 5-year low recorded in 2020 (6.6%) and was at its second-highest level (9.8%) in 2022. The reported prevalence of APRN credentials was only 0.2% lower than the highest level of 10% in 2017. Although the proportion of nurses holding a multistate license increased by 6.3% for RNs and 7.5% for LPNs/LVNs in the past 2 years, fewer than a third reported actively using it. Of the few who reported using it, most used it for providing telehealth services. travel nursing, and multistate practice.

Annual Earnings

Nursing incomes for both RNs and LPNs/LVNs have increased annually by about 7% from 2020 to 2021. with the median RN income increasing from $70,000 to $80,000 and the median LPN/LVN income increasing from $44,000 to $50,000. RNs' earnings grew in every state except New Hampshire and Tennessee. Similarly, earnings for LPNs/LVNs grew in every state except for five. Wages did not change in three states (New Hampshire, New Mexico, and the District of Columbia) and declined in two (New York and Texas).

Inflation and increased demand due to the pandemic are likely contributors to the increase in wages, but another possible contributing explanation is that highly paid travel nurses were common during the pandemic. While only 6% of RNs and 5% of LPNs/LVNs are currently travel nurses, the demand for travel nurses was much higher during the first year of the pandemic. In 2020, the number of travel nurses grew by 35% over the previous year and wages grew by 25% (Yang & Mason, 2022). As the use of travel nurses decreases, it will be interesting to see how this affects future earnings growth.

Telehealth

While telehealth has become a major focus of pandemic healthcare delivery, it does not seem to have changed how nurses use telehealth overall. However, there is some reason to believe the use of telehealth is increasing for some nurses. Nurses who spend much of their time providing services via telehealth increased since 2020. It is likely that nurses working in areas with high telehealth utilization, such as primary care and ambulatory care settings, are beginning to learn how to best use telehealth to provide nursing services. Both RNs and LPNs/LVNs saw a large increase in the use of video calls to deliver services (24.4% for RNs and 19.6% for LPNs/LVNs) since 2020.

The Impact of COVID-19

The COVID-19 pandemic had a deleterious impact on nurses' work and emotional well-being. Over 60% of all nurses reported an increase in their workload due to COVID-19, while 16% of RNs and 11% of LPNs/LVNs reported changing their practice settings. Consequently, it was not surprising that the majority of nurses reported feeling emotionally drained from work, used up at the end of their workday, and fatigued when they woke up. A considerable proportion also reported feeling at the end of their rope and burned out from work. The toll of COVID-19 on nurses requires urgent attention.

Conclusion

In the wake of the COVID-19 pandemic, the nursing workforce has undergone a dramatic shift with the loss of hundreds of thousands of experienced RNs and LPNs/LVNs. The nursing workforce has become younger and more diverse, with increases reflected in Hispanic/Latino and multiracial nursing categories, in addition to a steady increase in the proportion of men licensed. An increasing proportion of the RN workforce holds a baccalaureate degree or higher, moving closer to goals established by the National Academy of Medicine (2011). Salaries have notably increased for RNs and LPNs/LVNs, likely due to inflation and increased demand for nursing services. With the majority of nurses reporting feeling emotionally drained from work, used up at the end of their workday, and fatigued when they wake up, and with about a quarter of the population contemplating leaving the profession, the impact of the pandemic may still be felt in the future.

References

Institute of Medicine. (2011). *Future of nursing: Leading change, advancing health.* https://www.nap.edu/catalog/12956/the-future-of-nursing-leading-change-advancing-health

McMenamin, P. (2014, April 9). Tsunami warning: Massive RN retirements coming. *Medscape Nurses*. https://www.medscape.com/viewarticle/823183

National Academy of Medicine. (2021). *The future of nursing 2020-2030: Charting a path to achieve health equities*. The National Academies Press. https://nap.nationalacademies.org/catalog/25982/the-future-of-nursing-2020-2030-charting-a-path-to

U.S. Census Bureau. (2020). *ACS demographic and housing estimates: 2019*. Retrieved March 8, 2023, from https://data.census.gov/table?tid=ACSDP1Y2019.DP05

Yang, Y. T., & Mason, D. J. (2022, January 28). COVID-19's impact on nursing shortages, the rise of travel nurses, and price gouging. *Health Affairs Forefront*. Retrieved from https://www.healthaffairs.org/do/10.1377/forefront.20220125.695159/

Conflicts of Interest: None

APPENDIX A

2022 National Workforce Study Questionnaire

2022 NATIONAL NURSING WORKFORCE SURVEY

Marking Instructions

Use a No. 2 pencil or blue or black ink pen only.
Do not use pens with ink that soaks through the paper.
Make solid marks that fill the oval completely.

Correct Mark ✓ ✗ ⊖ ⊙ Incorrect Marks

Unless indicated, select one answer per question.

Tell Us About Your Experiences During the COVID-19 Pandemic

1. How did the COVID-19 pandemic impact your employment? *(Select all that apply)*

- ○ My workload increased
- ○ I became a travel nurse
- ○ I changed my practice setting
- ○ I started doing telehealth
- ○ I left nursing
- ○ I retired
- ○ The COVID-19 pandemic did not impact my employment
- ○ Other (Please specify)

2. Please mark the response that best describes how frequently you have each feeling in relation to your role at your job.

	Never	A few times a year	Once a month or less	A few times a month	Once a week	A few times a week	Every day
I feel emotionally drained from my work.	①	②	③	④	⑤	⑥	⑦
I feel used up at the end of the workday.	①	②	③	④	⑤	⑥	⑦
I feel fatigued when I get up and have to face another day on the job.	①	②	③	④	⑤	⑥	⑦
I feel burned-out from my work.	①	②	③	④	⑤	⑥	⑦
I feel like I'm at the end of my rope.	①	②	③	④	⑤	⑥	⑦

3. Is there anything else you would like to share about your experiences with stress in the workplace (e.g., burnout)?

Tell Us About Your License

4. What type of license do you currently hold? *(Select all that apply)*

- ○ RN ○ LPN ○ APRN

5. Year of Initial U.S. Licensure:

YEAR

6. In what country did you receive your entry-level nursing education?

- ○ United States
- ○ Canada
- ○ Philippines
- ○ India
- ○ Other (Please specify)

7. In what country were you initially licensed as an RN, LPN or APRN?

- ○ United States
- ○ Canada
- ○ Philippines
- ○ India
- ○ Other (Please specify)

8. What is the status of the license currently held?

- ○ Active ○ Inactive

9. Indicate whether you are credentialed in your state to practice as any of the following: *(Select all that apply)*

- ○ Certified Nurse Practitioner
- ○ Clinical Nurse Specialist
- ○ Certified Registered Nurse Anesthetist
- ○ Certified Nurse Midwife
- ○ Not credentialed as any of the above

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DO NOT WRITE IN THIS AREA

SERIAL #

10. **Please indicate the states in which you hold an active license to practice as an RN, LPN or APRN:**
(Select all that apply)

○ AK	○ HI	○ MI	○ NV	○ UT
○ AL	○ IA	○ MN	○ NY	○ VA
○ AR	○ ID	○ MO	○ OH	○ VT
○ AZ	○ IL	○ MS	○ OK	○ WA
○ CA	○ IN	○ MT	○ OR	○ WI
○ CO	○ KS	○ NC	○ PA	○ WV
○ CT	○ KY	○ ND	○ RI	○ WY
○ DC	○ LA	○ NE	○ SC	○ **AS**
○ DE	○ MA	○ NH	○ SD	○ **GU**
○ FL	○ MD	○ NJ	○ TN	○ **MP**
○ GA	○ ME	○ NM	○ TX	○ **VI**

11. **Please indicate the states in which you are currently practicing as an RN, LPN or APRN:**
(Select all that apply)

○ AK	○ HI	○ MI	○ NV	○ UT
○ AL	○ IA	○ MN	○ NY	○ VA
○ AR	○ ID	○ MO	○ OH	○ VT
○ AZ	○ IL	○ MS	○ OK	○ WA
○ CA	○ IN	○ MT	○ OR	○ WI
○ CO	○ KS	○ NC	○ PA	○ WV
○ CT	○ KY	○ ND	○ RI	○ WY
○ DC	○ LA	○ NE	○ SC	○ **AS**
○ DE	○ MA	○ NH	○ SD	○ **GU**
○ FL	○ MD	○ NJ	○ TN	○ **MP**
○ GA	○ ME	○ NM	○ TX	○ **VI**

Tell Us About Your Work

12. **What is your employment status?**
(Select all that apply)
- ○ Actively employed in nursing or in a position that requires a nurse license full-time
- ○ Actively employed in nursing or in a position that requires a nurse license part-time
- ○ Actively employed in nursing or in a position that requires a nurse license on a per-diem basis
- ○ Actively employed in a field other than nursing full-time
- ○ Actively employed in a field other than nursing part-time
- ○ Actively employed in a field other than nursing on a per-diem basis
- ○ Working in nursing only as a volunteer
- ○ Unemployed, seeking work as a nurse
- ○ Unemployed, not seeking work as a nurse
- ○ Retired

13. **If unemployed or retired, please indicate the reasons.** *(Select all that apply)*
- ○ Taking care of home and family
- ○ Disabled
- ○ Inadequate salary
- ○ Other (Please specify)
- ○ School
- ○ Difficulty in finding a nursing position
- ○ COVID-19 pandemic

If you are not actively employed in nursing, please skip to Question 33.

14. **Do you plan to retire or leave nursing in the next five years?**
○ Yes   ○ No

15. **In how many positions are you currently employed as a nurse?**
○ 1   ○ 2   ○ 3 or more

16. **How many hours do you work during a typical week in all your nursing positions?**

HOURS

17. **Are you currently a travel nurse?**
○ Yes   ○ No

18. **Please indicate the zip code of your primary employer.**

ZIP CODE				
⓪ ⓪ ⓪ ⓪ ⓪
① ① ① ① ①
② ② ② ② ②
③ ③ ③ ③ ③
④ ④ ④ ④ ④
⑤ ⑤ ⑤ ⑤ ⑤
⑥ ⑥ ⑥ ⑥ ⑥
⑦ ⑦ ⑦ ⑦ ⑦
⑧ ⑧ ⑧ ⑧ ⑧
⑨ ⑨ ⑨ ⑨ ⑨

19. **Please estimate your 2021 pre-tax annual earnings from your primary nursing position. Include overtime and bonuses but exclude sign-on bonuses.**

EARNINGS

$ _ , _ _ _ , _ _ _ .00 per year

⓪ ⓪ ⓪ ⓪ ⓪ ⓪ ⓪
① ① ① ① ① ① ①
② ② ② ② ② ② ②
③ ③ ③ ③ ③ ③ ③
④ ④ ④ ④ ④ ④ ④
⑤ ⑤ ⑤ ⑤ ⑤ ⑤ ⑤
⑥ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥
⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦
⑧ ⑧ ⑧ ⑧ ⑧ ⑧ ⑧
⑨ ⑨ ⑨ ⑨ ⑨ ⑨ ⑨

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20. Please identify the type of <u>setting</u> that most closely corresponds to your <u>primary</u> nursing practice position.

- ◯ Hospital
- ◯ Nursing Home/ Extended Care
- ◯ Assisted Living Facility
- ◯ Home Health
- ◯ Hospice
- ◯ Correctional Facility
- ◯ School of Nursing
- ◯ Public Health
- ◯ Dialysis Center
- ◯ Community Health
- ◯ School Health Service
- ◯ Occupational Health
- ◯ Ambulatory Care Setting
- ◯ Insurance Claims/Benefits
- ◯ Policy/Planning/ Regulatory/Licensing Agency

- ◯ Other (Please specify)

_____

21. Please identify the <u>position title</u> that most closely corresponds to your <u>primary</u> nursing practice position.

- ◯ Consultant
- ◯ Nurse Researcher
- ◯ Nurse Executive
- ◯ Nurse Manager
- ◯ Nurse Faculty/Educator
- ◯ Other–Health Related (Please specify)
- ◯ Advanced Practice Registered Nurse
- ◯ Staff Nurse
- ◯ Case Manager

_____

- ◯ Other–Not Health Related (Please specify)

_____

22. Please identify the employment <u>specialty</u> that most closely corresponds to your <u>primary</u> nursing practice position.

- ◯ Acute Care/Critical Care
- ◯ Adult Health
- ◯ Anesthesia
- ◯ Cardiology
- ◯ Community
- ◯ Emergency/ Trauma
- ◯ Family Health
- ◯ Genetics
- ◯ Geriatric/Gerontology
- ◯ Home Health
- ◯ Informatics
- ◯ Information Technology
- ◯ Maternal-Child Health/ Obstetrics
- ◯ Medical Surgical
- ◯ Neonatal
- ◯ Nephrology
- ◯ Other–Clinical specialties (Please specify)
- ◯ Neurology/ Neurosurgical
- ◯ Occupational Health
- ◯ Oncology
- ◯ Orthopedic
- ◯ Palliative Care/ Hospice
- ◯ Pediatrics
- ◯ Perioperative
- ◯ Primary Care
- ◯ Public Health
- ◯ Psychiatric/Mental Health/ Substance Abuse
- ◯ Radiology
- ◯ Rehabilitation
- ◯ School Health
- ◯ Urologic
- ◯ Women's Health

_____

- ◯ Other–Non-clinical specialties (Please specify)

_____

23. In your primary nursing practice position, do you spend the majority of your time providing direct patient care?

- ◯ Yes   ◯ No

24. Please identify the type of <u>setting</u> that most closely corresponds to your <u>secondary</u> nursing practice position.

- ◯ No Secondary Practice Position
- ◯ Hospital
- ◯ Nursing Home/ Extended Care
- ◯ Assisted Living Facility
- ◯ Home Health
- ◯ Hospice
- ◯ Correctional Facility
- ◯ School of Nursing
- ◯ Public Health
- ◯ Dialysis Center
- ◯ Community Health
- ◯ School Health Service
- ◯ Occupational Health
- ◯ Ambulatory Care Setting
- ◯ Insurance Claims/ Benefits
- ◯ Policy/Planning/ Regulatory/ Licensing Agency

- ◯ Other (Please specify)

_____

25. Please identify the <u>position title</u> that most closely corresponds to your <u>secondary</u> nursing practice position.

- ◯ No Secondary Practice Position
- ◯ Consultant
- ◯ Nurse Researcher
- ◯ Nurse Executive
- ◯ Nurse Manager
- ◯ Nurse Faculty/Educator
- ◯ Advanced Practice Registered Nurse
- ◯ Staff Nurse
- ◯ Case Manager
- ◯ Other–Health Related (Please specify)

_____

- ◯ Other–Not Health Related (Please specify)

_____

26. In your secondary nursing practice position, do you spend the majority of your time providing direct patient care?

- ◯ No Secondary Practice Position
- ◯ Yes
- ◯ No

Page THREE

Tell Us About Your Experience with Telehealth

27. What percentage of your work time do you estimate you provide nursing services or communicate with a patient or client located somewhere different from where you are located, via phone or electronically?

```
[ | | ]
```
% of my work time

28. When providing nursing services or communicating with a remote patient or client via phone or electronically, what percentage of the time is it across a <u>state border</u>?

```
[ | | ]
```
% of the time

○ Not applicable; I do not provide nursing services or communicate with remote patients or clients

29. When providing nursing services or communicating with a remote patient or client via phone or electronically, what percentage of the time is it across an <u>international border</u>?

```
[ | | ]
```
% of the time

○ Not applicable; I do not provide nursing services or communicate with remote patients or clients

30. Please select the mode(s) of communication you use to provide nursing services, or communicate with, a remote patient or client. *(Select all that apply)*

○ Not applicable; I do not provide nursing services or communicate with remote patients or clients
○ Electronic messaging (ex: text message, instant message)
○ Virtual ICU (also known as: tele-ICU, remote ICU, eICU)
○ Telephone
○ Email
○ Video call (Zoom, Skype, FaceTime, MSTeams, etc.)
○ Other (Please specify)

Tell Us About Your Experience with the Nurse Licensure Compact

31. Do you hold a multi-state license?
○ Yes   ○ No

32. How have you used your multi-state license?
○ I do not hold a multi-state license
○ Have Not Used
○ Disaster support
○ Distance education
○ Telehealth/communicating across state borders
○ Other (Please specify)

Tell Us About Yourself

33. What is your gender?
○ Male   ○ Female   ○ Non-Binary

34. Are you of Hispanic or Latino origin?
○ Yes   ○ No

35. What is your race? *(Select all that apply)*
○ American Indian or Alaska Native
○ Asian
○ Black/African American
○ Native Hawaiian or Other Pacific Islander
○ White/Caucasian
○ Other

36. In what year were you born?   **YEAR**
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[ | | ]
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37. What type of nursing degree/credential qualified you for your first U.S. nursing license?
○ Vocational/Practical certificate–nursing
○ Diploma–nursing
○ Associate degree–nursing
○ Baccalaureate degree–nursing
○ Master's degree–nursing
○ Doctoral degree–nursing (PhD)
○ Doctoral degree–nursing (DNP)

38. What is your highest level of nursing education?
○ Vocational/Practical certificate–nursing
○ Diploma–nursing
○ Associate degree–nursing
○ Baccalaureate degree–nursing
○ Master's degree–nursing
○ Doctoral degree–nursing (PhD)
○ Doctoral degree–nursing practice (DNP)
○ Doctoral degree–nursing other

39. What is your highest level of non-nursing education?
○ Associate degree–non-nursing
○ Baccalaureate degree–non-nursing
○ Master's degree–non-nursing
○ Doctoral degree–non-nursing
○ Not applicable

PageFOUR

Registered Nurse Nonresponse Analyses and Sample Weighting

Registered Nurse Nonresponse Analyses and Sample Weighting

A formal nonresponse bias analysis was conducted following the close of the survey. Although response rates are a valuable indicator of survey quality, they are not a good measure of response bias. An analysis of basic demographic data (gender and age) for all registered nurse (RN) licensees sampled from the Nursys database was used to compare the survey respondents and nonrespondents to determine the representativeness of the survey participants. The analysis was restricted to the states in the mailout portion of the survey who allowed the data to be shared from the Nursys database.

Variables in the data file came from both the Nursys database (i.e., the frame data) and responses to the survey (i.e., survey data). The variables used in the nonresponse analysis were from the frame and include state, date of birth, gender, and ethnicity. The dependent variable in the analysis was whether or not the sampled RN population completed the questionnaire.

Preliminary Analysis

Of the 150,698 RNs in the sample frame, 26,757 responded for a response rate of 17.8%* (Table B1). Table B2 shows the frequencies for gender. Table B3 shows the descriptive statistics for age. The only demographic information used for the following analyses come from Nursys, not the survey.

TABLE B1

Response Bias of Registered Nurses: Response Rate (*N* = 150,698)

Response Status	n	%
Nonresponse	123,941	82.2
Response	26,757	17.8

TABLE B2

Response Bias of Registered Nurses: Gender (*N* = 150,698)

Status	Gender	n	%	Valid %
Valid	Female	80,444	53.4	89.2
	Male	9,695	6.4	10.8
	Total	90,139	59.8	100.0
Missing	Restricted/unknown	21,342	14.2	
	Missing	39,217	26.0	
	Total	57,605	38.2	

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* This response rate corresponds to the American Association of Public Opinion's Response Rate 1 (the minimum response rate), in which the numerator is the number of completed questionnaires and the denominator is the total sample size. Retrieved from https://www.aapor.org/AAPOR_Main/media/publications/Standard-Definitions20169theditionfinal.pdf

TABLE B3

Response Bias of Registered Nurses: Descriptive Statistics for Age

	n	M	SD	Min	Max
Age, y	83,797	46.3	14.0	20	98

Bivariate analysis

Table B4 shows the bivariate relationship between gender from the sample frame and whether or not the respondent completed the survey. There were far fewer men in the database (9,695 men compared to 80,444 women), and they were less likely to complete the survey (12.6% among men compared to 17.0% among women).

TABLE B4

Response Bias of Registered Nurses: Survey Completion Rate by Gender (*N* = 150,698)

Gender	n	Complete survey?	
		No, %	Yes, %
Female	80,444	83.0	17.0
Male	9,695	87.4	12.6
Total	90,139	83.5	16.5

Note. χ^2 (1, $N = 90,139$) = 121.5, $p < .001$.

Table B5 displays the mean age of RNs. On average, those who completed the survey were 4.9 years older than the nonrespondents. This relationship was statistically significant.

TABLE B5

Response Bias RNs: Differences in Mean Age by Survey Completion

Complete survey?	n	Age, y, M (SD)
No	69,676	45.5 (13.7)
Yes	14,121	50.4 (14.5)
Total	83,797	46.3 (14.0)

Note. A *t* test showed that the relationship was significant at $p < .001$.

Weights

In the 2015, 2017, and 2020 National Nursing Workforce Survey reports, nonresponse adjustments were made for gender and age. For the 2022 Survey, nonresponse adjustments were applied for gender and age in the jurisdictions for which data were obtained through the Nursys database. To create the combined age and gender (AgeGender) nonresponse weights (i.e., AgeGenderWgtC),

the survey response rates for the age variable were compared at the 5-year age group level and neighboring cells with similar response rates were collapsed. Upon completion of this process, five age groups were created (18 to 34, 35 to 54, 55 to 59, ≥60, and missing). These five age groups were combined with the gender variable response categories (male, female, missing) to produce 15 AgeGender categories. The survey response rate for each AgeGender category (# responding/# in sample frame) was calculated and used to create each category's weight as follows:

$$\text{AgeGender Category Weight} = \frac{\text{Overall Survey Response Rate}}{\text{AgeGender Category Survey Response Rate}}$$

As an example of how this was calculated, there were 1,794 RNs in the sample frame whose gender was identified as male and whose age was missing. Out of these 1,794 RNs, 196 responded. The AgeGender response rate for this category was determined to be 196/1794 = .1093. The overall survey response rate was 26757/129356 = 0.2068. So the AgeGender weight for the age missing-gender male category was 0.2068/0.1093 = 1.8934.

When the AgeGender weights for each respondent are totaled, the sum comes to 26,757 – the same as the total number of respondents. Table B6 displays the weights for the 18 AgeGender categories in jurisdictions for which data were obtained through the Nursys database.

TABLE B6

Response Bias of Registered Nurses: AgeGender Weights

Age Group, y	Gender: Missing	Gender: Female	Gender: Male
18–34	1.625	1.623	2.428
35–54	1.430	1.408	1.722
55–59	1.096	1.033	1.181
≥60	0.795	0.794	0.909
Age missing	0.598	1.285	1.8934

In a similar manner, poststratification weights (i.e., JurisdictionWgtC) were constructed at the state level to adjust for differing sampling rates across states. These adjustments were made by comparing the number of responses to the number of licensees in that state. Analysis of the raw data, without accounting for the sample design, would lead to the overall results being too heavily influenced by states with fewer licensees.

For example, there were 466,414 RNs in California out of which 664 responded. The California response per license rate was 664/466414 = 0.0014. The overall response per license rate was 278631/5239499 = 0.0532. So, the poststratification weight for California was 0.0532/0.0014 = 37.3545.

Overall weights (pct_wgtC), which combined the AgeGender and poststratification weights, were created by multiplying the AgeGender and poststratification weights for each individual to create an initial set of weights, adding the initial weights together and

slightly adjusting the weights so that they summed to 278,631—the total number of responses in the mailout, email, and e-Notify portions of the survey.

The overall weights adjust the distribution across states, age, and gender but sum to the actual number of RNs in the subset of completed responses. They can be applied when analyzing relationships between variables without the effect of artificially altering the degrees of freedom and thereby affecting significance tests.

Licensed Practical/Vocational Nurse Nonresponse Analyses and Sample Weighting

As with the RNs, a formal nonresponse bias analysis was conducted on the licensed practical nurse/licensed vocational nurse (LPNs/LVNs) data following the close of the survey. Variables in the data file came from both the Nursys database (i.e., the frame data) and responses to the survey (i.e., survey data). The variables used in the nonresponse analysis were from the frame and included date of birth and gender. The dependent variable in the analysis was whether or not the sampled LPN/LVN population completed the questionnaire. The analysis was restricted to the states in the mailout portion of the survey who allowed the data to be shared from the Nursys database.

Preliminary analysis

Of the 149,169 LPN/VNs in the sample frame, 22,634 responded for a response rate of 15.2% (Table B7). Table B8 shows the frequencies for gender, and Table B9 shows the descriptive statistics for age.

TABLE B7

Response Bias of Licensed Practical Nurses/Licensed Vocational Nurses: Response Rate (N = 149,169)

Response	n	%
No	126,535	84.8
Yes	22,634	15.2

TABLE B8

Response Bias of Licensed Practical Nurses/Licensed Vocational Nurses: Gender (N = 149,169)

Status	Gender	n	%	Valid %
Valid	Female	83,338	55.9	91.8
	Male	7,526	5.0	8.2
	Total	90,864	60.9	100.0
Missing	Restricted/unknown	15,768	10.6%	
	Missing	42,537	28.5%	
	Total	58,305	39.1%	

TABLE B9

Response Bias of Licensed Practical Nurses/Licensed Vocational Nurses: Descriptive Statistics for Age

	n	M	SD	Min	Max
Age, y	88,530	47.1	13.4	18	100

Bivariate analysis

Tables B10 shows the bivariate relationship between gender from the sample frame and whether or not the respondent completed the survey. There were far fewer men in the database (7,526 men compared to 83,338 women), and they were less likely to complete the survey (10.0% among men compared to 14.7% among women).

TABLE B10

Response Bias of Licensed Practical Nurses/Licensed Vocational Nurses: Survey Completion Rate by Gender

Gender	n	Complete Survey?	
		No, %	Yes, %
Female	83,338	85.3	14.7
Male	7,526	90.0	10.0
Total	90,864	76.0	24.0

Note. χ^2 (1, N = 90,864) = 123.4, p < .001.

Table B11 displays the mean age of LPN/VNs. On average, those who completed the survey were 6 years older than nonrespondents. This relationship was statistically significant.

TABLE B11

Response Bias of Licensed Practical Nurses/Licensed Vocational Nurses: Differences in Mean Age by Survey Completion

Complete survey?	n	Age, y, M (SD)
No	75,842	46.2 (13.2)
Yes	12,688	52.2 (13.7)
Total	88,530	47.1 (13.4)

Note. A *t* test showed that this relationship was significant at p < .001.

Weights

In the 2015, 2017, and 2020 National Nursing Workforce Survey reports, nonresponse adjustments were made for gender and age. For the 2022 Survey, nonresponse adjustments were applied for gender and age in the jurisdictions for which data was obtained through the Nursys database. To create the combined age and gender (AgeGender) nonresponse weights (i.e., AgeGenderWgtC), the survey response rates for the age variable were compared at

the 5-year age group level and neighboring cells with similar response rates were collapsed. Upon completion of this process, five age groups were created (18 to 34, 35 to 54, 55 to 59, ≥60, and missing). These five age groups were combined with the gender variable response categories (male, female, missing) to produce 15 AgeGender categories. The survey response rate for each AgeGender category (# responding/# in sample frame) was calculated and used to create each category's weight as follows:

$$\text{AgeGender Category Weight} = \frac{\text{Overall Survey Response Rate}}{\text{AgeGender Category Survey Response Rate}}$$

An example of how this was calculated can be found in the RN nonresponse sample weighting section.

When the AgeGender weights for each respondent are totaled, the sum equals 22,634 – the same as the total number of respondents. Table B12 displays the weights for the 15 AgeGender categories in jurisdictions for which data were obtained through the Nursys database.

TABLE B12

Response Bias of Licensed Practical Nurses/Licensed Vocational Nurses: AgeGender Weights

Age Group, y	Gender: Missing	Gender: Female	Gender: Male
18–34	2.324	1.784	2.706
35–54	1.597	1.408	1.890
55–59	1.052	0.908	1.296
≥60	0.780	0.677	0.984
Age missing	0.611	1.253	1.848

In a similar manner, poststratification weights (i.e., JurisdictionWgtC) were constructed at the state level to adjust for differing sampling rates across states. However, these adjustments were made not by comparing the number of responses in a state to its sample frame count, but rather by comparing the number of responses to the number of licensees in that state. An example of how these weights were calculated can be found in the RN nonresponse sample weighting section.

Overall weights (pct_wgtC), which combined the AgeGender and poststratification weights, were created by multiplying the AgeGender and poststratification weights for each individual to create an initial set of weights, adding the initial weights together, and slightly adjusting the weights so that they sum up to 55,503– the total number of responses in the mailout, email, and e-Notify portions of the survey.

The overall weights adjust the distribution across states, age, and gender but sum to the actual number of LPNs/LVNs in the subset of completed responses. They can be applied when analyzing relationships between variables without the effect of artificially altering the degrees of freedom and thereby affecting significance tests.
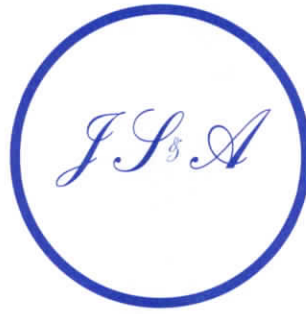
March 2, 2023

Dear Ms. Willinger:

Josef Silny & Associates, Inc., International Education Consultants (JS&A) was founded in 1987 in order to provide the highest quality of foreign credential evaluations and translations.   I personally have over 40 years of professional experience in the field, including 16 years as the Director of International Admissions at the City University of New York and the University of Miami.   At both universities I was responsible for evaluating foreign academic credentials and admission into undergraduate and graduate programs, including nursing.   Our company has been a member of the National Association of Credential Evaluation Services (NACES) since 1989.   NACES is essentially an accreditation body for foreign credential evaluation companies.

Our staff of over 70 includes 33 highly qualified foreign credential evaluators who speak many different foreign languages.   We have been evaluating foreign academic credentials for Boards of Nursing since 2008.   Attached is the list of 27 boards of nursing which accept our evaluations.
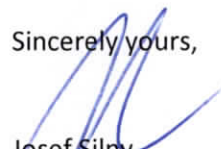
Enclosed is a letter from the U.S. Department of Homeland Security of the USCIS approving our company to issue the Certification for Health Care Workers for Registered and Licensed Practical Nurses. Only CGFNS and our company have been approved for this process.

I have also attached a sample evaluation.

This is to request that the Virginia Board of Nursing adds our company as an approved foreign credential evaluation service.   I will be glad to provide any information you may need.

We look forward to hearing from you.

Sincerely yours,

Josef Silny
President

ORGANIZATIONS WHICH ACCEPT EVALUATIONS DONE BY JS&A

JS&A is a Member of the National Association of Credential Evaluation Services, Inc. (NACES). Evaluations prepared by JS&A are accepted and recognized by the organizations listed below:

1. **U.S. Federal Government**
   USCIS -The United States Citizenship and Immigration Services
   The United States Department of Agriculture
   The United States Department of Defense
   The United States Labor Department
   The United States Office of Personnel Management
   Federal Bureau of Prisons
   Health Care Financing Administration

2. **U.S. Armed Forces**
   Air Force
   Army
   Marines

3. **Licensing Boards**
   Accounting: Arkansas, California, Colorado, Connecticut, District of Columbia, Florida, Indiana, Kentucky, Michigan, Nebraska, Nevada, New Mexico, Ohio, Pennsylvania, South Dakota, Tennessee, Utah, Vermont, Virginia, Wisconsin, Wyoming
   Architecture: Alaska, California
   Barbers: Florida, Minnesota, South Dakota
   Cosmetology: Georgia, Louisiana, North Carolina, South Carolina, Tennessee, Utah, Vermont
   Engineering: Alaska, Florida, Louisiana, Maryland, New Jersey, Puerto Rico, Texas, Virginia
   Law: California, Florida, Texas
   Marriage and Family Therapy, Mental Health: Florida
   Massage Therapy: Florida, Michigan, Nevada, Utah, Virginia
   Medical Laboratory: American Medical Technologists, American Society of Clinical Pathologists, Health Care Financing Administration, California, Connecticut, Florida, Georgia, Nevada, North Dakota, Tennessee
   Nursing: Alabama, Arizona, Arkansas, California (vocational nursing only), Colorado, District of Columbia, Florida, Hawaii, Idaho, Illinois, Kentucky, Louisiana, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oregon, Pennsylvania, Puerto Rico, South Carolina, Texas, Washington, Wyoming
   Opticianry: Florida
   Psychology: California, Delaware, District of Columbia, Florida, Maryland, Ohio, Oregon, Virginia
   Respiratory Care: National Board for Respiratory Care, California, Florida
   Social Work: Florida
   Speech-Language Pathology and Audiology: American Speech-Language-Hearing Association, Florida, Georgia
   Texas Medical and Dental Schools Application Service

4. **State Departments of Education**
   Alabama, Alaska, Arizona, Arkansas, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

5. **Other Governmental and Private Agencies**
   American Association for Clinical Chemistry
   Association of Colleges of Osteopathic Medicine
   American Association of Colleges of Podiatric Medicine
   Association of American Veterinary Medical Colleges
   Broward County Sheriff's Office
   CASPA - Central Application Service for Physician Assistants
   Florida Department of Health and Rehabilitative Services
   National Career Development Association
   NCAA
   Office of Personnel of: City of Miami, Ft. Lauderdale, Miami Beach, New York City, State of New York

6. **Hundreds of Colleges and Universities**

   Many other organizations which do not appear on this list may also accept evaluations done by JS&A. Applicants are advised to check with the agency, institution, or organization to which they intend to submit the evaluation to make certain that the evaluation will be recognized.

U.S. Citizenship
and Immigration
Services

July 22, 2021

Refer to File Number:
LIN1922470002

JOSEF SILNY ASSOCIATES INC
C/O JOSEF SILNY
7101 SW 102 AVENUE
MIAMI FL 33173

Dear Sir or Madam:

Case Type: I 140, Application for Authorization to Issue Certification for Health Care Workers
Applicant: Josef Silny & Associates, Inc. (JS&A)

DECISION

This is in reference to the Form I-905, Application for Authorization to Issue Certification for Health Care Workers, you filed on or around July 17, 2019. USCIS is pleased to inform you that your Form I-905 requesting authorization to issue certification for Licensed Practical Nurses, Licensed Vocational Nurses and Registered Nurses is approved. This authorization will be valid for a period of five years from the date of this letter.

Sincerely,

Loren K. Miller
Director

NSC/MGS/EX0083
cc: Director, Office of Global Health Affairs, Health Resources and Services Administration, U.S. Department of Health and Human Services

(SSI),[2] or Protected Critical Infrastructure Information (PCII)[3] should not be submitted to the public docket. Comments containing protected information should be appropriately marked and packaged in accordance with all applicable requirements and submission must be coordinated with the point of contact for this notice provided in **FOR FURTHER INFORMATION CONTACT** section. CISA will forward all comments containing protected information that are received before the submission deadline to the OMB Desk Officer.

Authority: 6 U.S.C. 621–629.

Samuel Vazquez,

Acting Chief Information Officer, Department of Homeland Security, Cybersecurity and Infrastructure Security Agency.

[FR Doc. 2021–16215 Filed 7–27–21; 4:15 pm]

BILLING CODE 9110–9P–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Citizenship and Immigration Services

[CIS No. 2694–21; DHS Docket No. USCIS–2021–0009]

Notice of Approval of New Credentialing Organization for Healthcare Workers for Certain Immigration Purposes

AGENCY: Department of Homeland Security, U.S. Citizenship and Immigration Services.

ACTION: Notice.

SUMMARY: The Department of Homeland Security ("DHS" or "the Department"), U.S. Citizenship and Immigration Services (USCIS), is issuing this document to inform the public of the approval of a new credentialing organization for certain health care workers for certain immigration purposes.

DATES: USCIS approved the application from Josef Silny Associates, Inc. on July 22, 2021.

FOR FURTHER INFORMATION CONTACT: Charles L. Nimick, Chief, Business and Foreign Workers Division, Office of Policy and Strategy, U.S. Citizenship and Immigration Services, Department of Homeland Security, 5900 Capital Gateway Drive, Camp Springs, MD 20746; or by phone at 240–721–3000

[2] For more information about SSI see 49 CFR part 1520 and the SSI Program web page at *www.tsa.gov/for-industry/sensitive-security-information*.

[3] For more information about PCII see 6 CFR part 29 and the PCII Program web page at *www.dhs.gov/pcii-program*.

(this is not a toll-free number). Individuals with hearing or speech impairments may access the telephone number above via TTY by calling the toll-free Federal Information Relay Service at 1–877–889–5627 (TTY/TDD).

SUPPLEMENTARY INFORMATION: Sections 212(a)(5)(C) and 212(r) of the Immigration and Nationality Act (the Act), 8 U.S.C. 1182(a)(5)(C) and (r), as well as the DHS regulations at 8 CFR 214.1(i) and (j) and 212.15(a) and (n)(3) require that an individual who seeks admission to the United States as a nonimmigrant or immigrant, or who is the beneficiary of a change of status petition, or who is applying for adjustment of status, in the United States for the purpose of performing labor in certain health care occupations is inadmissible unless he or she presents a certificate from an authorized credentialing organization. DHS regulations at 8 CFR 212.15(e)(1) through (3) expressly authorize the Commission on Graduates of Foreign Nursing Schools (CGFNS), the National Board for Certification in Occupational Therapy (NBCOT), and the Foreign Credentialing Commission on Physical Therapy (FCCPT) to issue such certificates. DHS regulations also establish detailed standards for the approval of additional credentialing organizations after consultation with the Secretary of Health and Human Services, and USCIS has created an adjudicatory framework for the filing and adjudication of those applications, using Form I–905, *Application for Authorization to Issue Certification for Health Care Workers.* 8 CFR 212.15(j) and (k). The regulations also provide for periodic review and, if necessary, termination of credentialing organizations. 8 CFR 212.15(l) and (m). Finally, the regulations direct DHS to notify the public of the approval of additional credentialing organizations by publishing notices in the **Federal Register**. 8 CFR 212.15(e) and (h).

On July 22, 2021, USCIS, following consultation with the Secretary of Health and Human Services, approved the application from Josef Silny Associates, Inc., as an organization authorized to issue certificates and certified statements under sections 212(a)(5)(C) and 212(r) of the Act, 8 U.S.C. 1182(a)(5)(C) and (r), for individuals seeking to enter the United States for the primary purpose of working as a nurse. This notice is being provided in accordance with 8 CFR 212.15(e) and (h). Further guidance on certificates for health care workers is available at *https://www.uscis.gov/working-in-the-united-states/temporary-workers/health-care-worker-certification*.

Tracy L. Renaud,

Acting Director.

[FR Doc. 2021–16181 Filed 7–28–21; 8:45 am]

BILLING CODE 9111–97–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–7036–N–07]

60-Day Notice of Proposed Information Collection: Closeout Instructions for Community Development Block Grant Programs (CDBG); OMB Control No: 2506–0193

AGENCY: Office of Community Planning and Development, Housing and Urban Development (HUD).

ACTION: Notice.

SUMMARY: HUD is seeking approval from the Office of Management and Budget (OMB) for the information collection described below. In accordance with the Paperwork Reduction Act, HUD is requesting comment from all interested parties on the proposed collection of information. The purpose of this notice is to allow for 60 days of public comment.

DATES: *Comments Due Date:* September 27, 2021.

ADDRESSES: Interested persons are invited to submit comments regarding this proposal. Comments should refer to the proposal by name and/or OMB Control Number and should be sent to: Anna Guido, Reports Management Officer, QDAM, Department of Housing and Urban Development, 451 7th Street SW, Room 4176, Washington, DC 20410–5000; telephone 202–402–5535 (this is not a toll-free number) or email at *Anna.p.Guido@hud.gov* for a copy of the proposed forms or other available information. Persons with hearing or speech impairments may access this number through TTY by calling the toll-free Federal Relay Service at (800) 877–8339.

FOR FURTHER INFORMATION CONTACT: Robert Peterson, Director of State and Small Cities Division, Office of Block Grant Assistance, Department of Housing and Urban Development, email Robert Peterson at *Robert.C.Peterson@hud.gov* or telephone 202–402–4211. This is not a toll-free number. Persons with hearing or speech impairments may access this number through TTY by calling the toll-free Federal Relay Service at (800) 877–8339.

REPORT OF EVALUATION OF EDUCATIONAL CREDENTIALS

NAME: Ms. Sample
DOB: 2/17/19XX
COUNTRY: Philippines

PURPOSE OF Montana
EVALUATION: Board of
Nursing

March 2, 2023

In response to Ms. Sample's request, the following is an evaluation of her academic credentials from the Philippines for consideration by the Montana Board of Nursing. This evaluation was prepared based on official original academic credentials received directly and verified as authentic by Centro Escolar University in the Philippines.

Ms. Sample attended Centro Escolar University (Pamantasan Centro Escolar) in the Philippines from 2013 to 2017. Founded in 1907, Centro Escolar University is a private institution of higher education accredited by the Philippine Accrediting Association of Schools, Colleges and Universities (PAASCU), the Philippines Association of Colleges and Universities Commission on Accreditation (PACUCOA) and the Commission on Higher Education (CHED) in the Philippines. In order to be accepted into Centro Escolar University, applicants must have graduated from a high school in the Philippines and passed an entrance examination. This is the equivalent of graduation from a college preparatory program at an accredited high school in the United States.

Ms. Sample completed the undergraduate program in Nursing and was awarded the degree of Bachelor of Science in Nursing by Centro Escolar University on March 31, 2017. This is the equivalent of the U.S. degree of Bachelor of Science in Nursing earned at a regionally accredited institution of higher education in the United States.

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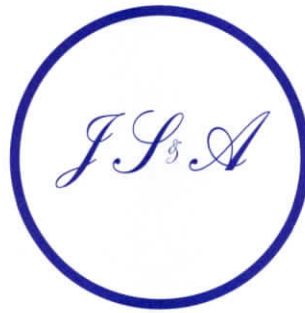E-Mail: info@jsilny.org
www.jsilny.org

Ms. Sample has been licensed as Registered Professional Nurse with the Philippines Professional Regulation Commission in the Philippines since July 12, 2017 with expiration on September 17, 2022. Ms. Sample's nursing license has been verified as authentic by the Philippines Professional Regulation Commission in the Philippines. Ms. Sample's license is in good standing and has never been suspended or revoked.

Below is the course-by-course evaluation of Ms. Sample's study at Centro Escolar University in terms of U.S. courses, semester credit hours and grades:

COURSES		CREDITS	GRADES
First Semester 2013-2014:			
CHEM1	General Chemistry	4.00	B
COMSKILLS11	Integrated English Skills for College Freshman	3.00	B
FIL11	Filipino: Komunikasyon sa Akademikong Filipino	3.00	B
MATH11	College Algebra	3.00	C
NSTP11	Civic Wealfare Training Service I @*	(3.00)	B
NURTFN120	Theoretical Foundations in Nursing	3.00	B
PE11	Physical Education: Physical Fitness and Wellness	1.00	A
SOCARTS11	Empowering the Self	2.00	A
SOCSCI14	General Psychology	3.00	A
ZOO10	Foundations of Zoology	3.00	B
Second Semester 2013-2014:			
BIOSCI104	General Anatomy and Physiology	4.00	C
CHEM122	Organic and Biochemistry	4.00	C
COMSKILLS12	English for Improved Academic Performance	3.00	C-
FIL12	Filipino: Pagbasa at Pagsulat Tungo sa Pananaliksik	3.00	B

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NCM100	Fundamentals of Nursing Practice (102 Hours Related Learning Experience)	4.00	C
NSTP12	Civic Welfare Training Service 2 (C-13-089113-14) @*	(3.00)	A
PE12	Physical Education: Rhythmic Activities	1.00	A
THEO11	Man and Religion	3.00	B

Summer 2014:

HUM101	Priniciples of Logic	3.00	A
NURHA121	Health Assessment (51 Hours Related Learning Experience)	3.00	C
PHYSICS11	Foundations of Physics	3.00	B

First Semester 2014-2015:

BIOSCI101	Fundamentals of Microbiology and Parasitology	3.00	C
COMSKILLS13	Speaking Skills for Effective Communication and Oral Presentation	3.00	A
FORLANG11	Foreign Language I (Unspecified) @	(3.00)	F
HUM11	Introduction to Arts	3.00	B
HUM12	Foundations of Philosophy and Ethics	3.00	B
NCM101	Care of Mother, Child and Family (204 Hours Related Learning Experience	6.00	C

First Semester 2014-2015:

NURCHN130	Community Health Nursing (102 Hours Related Learning Experience)	4.00	C
PE13	Physical Education: Individual/ Dual Sports	1.00	A

Second Semester 2014-2015:

COMSKILLS14	Writing Skills for Specific Porpuses	3.00	B

COMP11	Information Technology Essentials	3.00	C
MATH102	Biostatistics	3.00	C
NCM102	Care of Mother, Child, Family and Population Group at-risk or with Problems (306 Hours Related Learning Experience)	6.00	C
NURPH144	Pharmacology I	3.00	C
PE14	Physical Education: Team Sports	1.00	A
THEO12	Man and Morality	3.00	C

Summer 2015:

COMP22	Nursing Informatics	3.00	C-
NURHE150	Health Education	3.00	B
NURND152	Nutrition and Diet Therapy	3.00	C

First Semester 2015-2016:

HUM13	World Classics	3.00	C
NCM103	Care of Clients with Problems in the Oxygenation, Fluid and Electrolyte Balance, Metabolism and Endocrine (306 Hours Related Learning Experience)	6.00	C
NURBE151	Bioethics	3.00	C-
NURPH145	Pharmacology II	3.00	C-
SOCSCI11	Philippine History and Governance with Philippine Constitution	3.00	B
SOCSCI12	Principles of Economics, Taxation and Land Reform with Cooperatives	3.00	C

Second Semester 2015-2016:

NCM104	Care of Clients with Problems in Inflammatory and Immunologic Response, Perception and Coordination (204 Hours Related Learning Experience)	6.00	C

NCM105	Care of Clients with Maladaptive Patterns of Behaviour (153 Hours Related Learning Experience)	6.00	C
NURE160	Elective Course I: Parent Child Nursing/Spiritual Care Nursing/Hospice Palliative Care	2.00	C
NURR191	Nursing Research 1 (51 Hours Related Learning Experience)	3.00	C-
SOCSCI13	Rizal's life, Works and Writings	3.00	B
SOCSCI15	Society and Culture	3.00	C

First Semester 2016-2017:

FORLANG11	Foreign Language I (Unspecified) #	3.00	B
NCM106	Care of Clients with Problems in Cellular Aberrations, Acute Biologic Crisis including Emergency and Disaster Nursing (255 Hours Related Learning Experience)	6.00	C
NCM107	Nursing Leadership and Management	3.00	C
NURCA170	Competency Appraisel I	3.00	C-
NURE163	Elective Course II: Acute Critical Care Nursing	2.00	C
NURR192	Nursing Research II (102 Hours Related Learning Experience)	2.00	B

Second Semester 2016-2017:

FORLANG12	Foreign II (Unspecified)	3.00	C
NCM108	Nursing Leadership and Management (153 Hours Related Learning Experience)	3.00	C
NURCA171	Competency Appraisal II	3.00	C
NURINP184	Intensive Nursing Practicum (408 Hours Related Learning Experience)	6.00	C

@* These courses were required for graduation by Centro Escolar University, but not counted toward graduation by the Commission on Higher Education in the Philippines.

While the language of instruction and textbooks was English, there is no evidence, that all students and faculty were native speakers of English.

This evaluation was prepared exclusively for the Montana Board of Nursing and may not be used for any other board of nursing or for educational purposes.

This evaluation is a statement solely of educational equivalence; only the qualified authorities can determine whether an individual educated abroad can be licensed in the United States.

In summary, it is the judgment of Josef Silny & Associates, Inc., International Education Consultants, that Ms. Sample has equivalent of the U.S. degree of Bachelor of Science in Nursing earned at a regionally accredited institution of higher education in the United States.

Sincerely,

Kenneth Li
Senior International Education Consultant
KL:010

Palina Lippman
Senior International Education Consultant

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Attachment of Nursing Theory and Clinical Clock Hours and Required Coursework for Registered Nursing

Client's Name: Ms. Sample
Institution: Centro Escolar University
Address: 9 Mendiola Sgtreet, San Miguel, Manila, 1005 Philippines
Date of Graduation: March 31, 2017
Language of Nursing Instruction: English
Language of Nursing Textbooks: English

Nursing Education Categories	Completed by Applicant Theory Clock Hours	Completed by Applicant Clinical Clock Hours	List Courses in which these topics are integrated:
Medical:	253	663	NCM 103, NCM 104, NCM 106, NURE 163, CA 1, CA 2
Surgical:	253	663	NCM 103, NCM 104, NCM 106, NURE 163 CA 1, CA 2
Obstetric:	63	170	NCM 101, NCM 102
Pediatric:	93	272	NCM 101, NCM 102
Psychiatric:	90	153	NCM 105

Total number of Theory Clock hours completed: 752 hours.
Total number of Clinical Clock hours completed: 1921 hours.

REFERENCES FOR THE PHILIPPINES

World Higher Education Data Base 1997/1998, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.
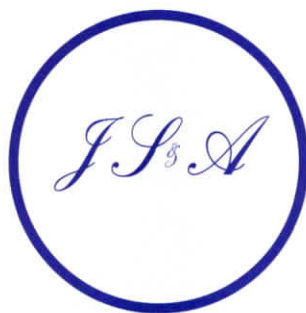
World Higher Education Data Base 2002/2003, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2003/2004, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2004/2005, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2005/2006, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2006/2007, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2007/2008, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2008/2009, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2009/2010, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2010/2011, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.
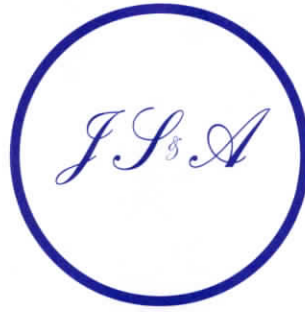
World Higher Education Data Base 2011/2012, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2012/2013, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2013/2014, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2014/2015, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2015/2016, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2016/2017, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2017/2018, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

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World Higher Education Data Base 2018/2019, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2019/2020, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2020/2021, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2021/2022, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

World Higher Education Data Base 2022/2023, International Association of Universities, UNESCO Information Centre on Higher Education, TRACE International Higher Education Network.

International Handbook of Universities and Other Institutions of Higher Education, Twelfth Edition, New York: Stockton Press, 1991.
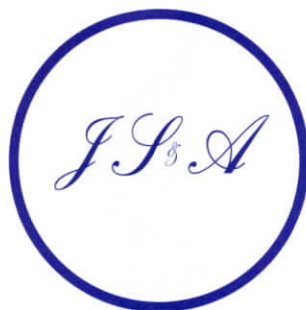
International Handbook of Universities and Other Institutions of Higher Education, Thirteenth Edition, New York: Stockton Press, 1993.

International Handbook of Universities, Seventeenth Edition, Palgrave Macmillan division of the St. Martin's Press 2003.

Handbook on the Placement of Foreign Graduate Students 1990 Edition, Edited by William J. Paver. Washington, D.C.: National Association for Foreign Student Affairs, 1990.

World List of Universities and Other Institutions of Higher Education, Twenty-third Edition, Palgrave, 2002.

World List of Universities and Other Institutions of Higher Education, Twentieth Edition, New York: Stockton Press, 1995.

World List of Universities, Nineteenth Edition, New York: Stockton Press, 1992.

Foreign Educational Credentials Required for Consideration of Admission to Universities and Colleges in the United States, American Association of Collegiate Registrars and Admissions Officers, Washington, D.C., 1994.

International Guide to Qualifications in Education, The National Academic Recognition Information Center for the United Kingdom, London, Third Edition, 1992.

International Guide to Qualifications in Education, The National Academic Recognition Information Center for the United Kingdom, London, Fourth Edition, 1996.

Cooney, Robert, ed. PIER World Education Series: Philippines, a Study of the Philippines and Guide to the Academic Placement of Students in Education Institutions in the United States. Washington, DC: AACRAO and NAFSA, 2001.

DIRECTORY OF HIGHER EDUCATION IN THE PHILIPPINES, Commission on Higher Education, Republic of the Philippines, Pasig City, January 1997.

Carson, Arthur L. The Story of Philippine Education. New Day Publisher, Quezon City, Philippines, 1978.

Higbee, Homer and Winters, Marjorie K. The Admission and Placement of Students from Hong Kong, Malaysia, Philippines, and Singapore. The Joint Committee on Workshops. Washington, D.C.: NAFSA and AACRAO, 1979.

VIRGINIA BOARD OF NURSING
EDUCATION SPECIAL CONFERENCE COMMITTEE
Tuesday, April 18, 2023

Department of Health Professions – Perimeter Center
9960 Mayland Drive, Conference Center 201 – Hearing Room 5
Henrico, Virginia 23233

TIME AND PLACE:	The meeting of the Education Special Conference Committee was convened at 9:00 a.m. in Suite 201, Department of Health Professions, 9960 Mayland Drive, Second Floor, Hearing Room 5, Henrico, Virginia.
MEMBERS PRESENT:	Felisa A. Smith, PhD, MSA, RN, CNE, Chair James L. Hermansen-Parker, MSN, PCCN-K
STAFF PRESENT:	Jacquelyn Wilmoth, MSN, RN, Deputy Executive Director Randall Mangrum, DNP, RN, Nursing Education Program Manager Robin Hills, DNP, Deputy Executive Director Christine Smith, RN, MSN, Nurse Aide/RMA Education Program Manager Melissa Armstrong, Adjudication Specialist Beth Yates, Education Program Specialist
PUBLIC COMMENT:	There was no public comment.

INFORMAL CONFERENCES:

J. Sargeant Reynolds Community College, Associate Degree Program, Richmond

Dr. Patricia Lawson, PhD, RN, Dean, School of Health Professions, Emily Gunn, RN, MSN, Program Coordinator, and Paula Pando, President, were present to represent the program. The program was represented by counsel.

The program submitted additional documents to the board for reference.

Dr. Smith moved that the Education Informal Conference Committee of the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A) (27) of the Code of Virginia at 10:33 a.m. for the purpose of deliberation to reach a decision in the matter of J. Sargeant Reynolds Community College, Richmond, Associate Degree Nursing Education Program. Additionally, Dr. Smith moved that, Ms. Wilmoth, Ms. Armstrong and Ms. Yates attend the closed meeting because their presence in the closed meeting was deemed necessary and their presence will aid the Committee in its deliberations.

The motion was seconded and carried unanimously. The Committee reconvened in open session at 10:50 a.m.

Mr. Hermansen-Parker moved that the Education Informal Conference Committee of the Board of Nursing certify that it heard, discussed, or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded and carried unanimously.

ACTION: Mr. Hermansen-Parker moved to recommend that the program remain on conditional approval with certain terms and conditions.

The motion was seconded and carried unanimously.

This recommendation will be presented to the full Board on May 23, 2023.

Germanna Community College, Practical Nursing Program, Locust Grove,

April Morgan, DNP, MSN, BSN, Associate Dean of Nursing, Samantha Wilson, Department Chair, Patricia Lisk, RN, MSN, DACCE, Dean of Nursing & Health Technologies, and Dr. Eric Earnhardt, PhD, Chief Academic Officer, were present to represent the program. The program was represented by counsel.

Dr. Smith moved that the Education Informal Conference Committee of the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A) (27) of the Code of Virginia at 12:55 p.m. for the purpose of deliberation to reach a decision in the matter of Germanna Community College, Locust Grove, Practical Nursing Education Program. Additionally, Dr. Smith moved that Ms. Wilmoth, Ms. Armstrong and Ms. Yates attend the closed meeting because their presence in the closed meeting was deemed necessary and their presence will aid the Committee in its deliberations.

The motion was seconded and carried unanimously. The Committee reconvened in open session at 1:32 p.m.

Mr. Hermansen-Parker moved that the Education Informal Conference Committee of the Board of Nursing certify that it heard, discussed, or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded and carried unanimously.

ACTION: Mr. Hermansen-Parker moved to recommend that the program remain on conditional approval with certain terms and conditions.

The motion was seconded and carried unanimously.

This recommendation will be presented to the full Board on May 23, 2023.

Ms. Wilmoth left the meeting at 1:35 p.m.
Ms. Smith joined the meeting at 1:35 p.m.

Virginia Highlands Community College, Abingdon, Practical Nursing Program, US28110800

Bridget Casteel, MSN, RN, Program Director, Adam Hutchison, President, and Victoria Ratliff, Ed.D. Interim Dean of Health Programs were present to represent the program. The program was represented by counsel.

Dr. Smith moved that the Education Informal Conference Committee of the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A) (27) of the Code of Virginia at 3:48 p.m. for the purpose of deliberation to reach a decision in the matter of Virginia Highlands Community College, Abingdon, Practical Nursing Education Program. Additionally, Dr. Smith moved that, Dr. Mangrum, Ms. Armstrong and Ms. Yates attend the closed meeting because their presence in the closed meeting was deemed necessary and their presence will aid the Committee in its deliberations.

The motion was seconded and carried unanimously. The Committee reconvened in open session at 3:56 p.m.

Mr. Hermansen-Parker moved that the Education Informal Conference Committee of the Board of Nursing certify that it heard, discussed, or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded and carried unanimously.

ACTION: Mr. Hermansen-Parker moved to recommend that the program remain on conditional approval with certain terms and conditions.

The motion was seconded and carried unanimously.

This recommendation will be presented to the full Board on May 23, 2023.

Ms. Smith left the meeting at 3:48 p.m.
Dr. Hills joined the meeting at 3:58 p.m.

Medical Learning Center, Fairfax, Practical Nursing Education Program, US28110500

No representatives for the program were present.

Dr. Smith moved that the Education Informal Conference Committee of the Board of Nursing convene a closed meeting pursuant to §2.2-3711(A) (27) of the Code of Virginia at 4:02 p.m. for the purpose of deliberation to reach a decision in the matter of Medical Learning Center, Fairfax, Practical Nursing Education Program. Additionally, Dr. Smith moved that, Dr. Hills, Dr. Mangrum, Ms. Armstrong and Ms. Yates attend the closed meeting because their presence in the closed meeting was deemed necessary and their presence will aid the Committee in its deliberations.

The motion was seconded and carried unanimously. The Committee reconvened in open session at 4:26 p.m.

Mr. Hermansen-Parker moved that the Education Informal Conference Committee of the Board of Nursing certify that it heard, discussed, or considered only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act and only such public business matters as were identified in the motion by which the closed meeting was convened. The motion was seconded and carried unanimously.

ACTION: Mr. Hermansen-Parker moved to recommend that approval to operate a practical nursing education program be withdrawn.

         The motion was seconded and carried unanimously.

         This recommendation will be presented to the full Board on May 23, 2023.

         Meeting adjourned at 4:26 p.m.

         _____
         Jacquelyn Wilmoth, MSN, RN
         Deputy Executive Director